Application for Risk Based Disposal of PCB-Containing Dredged Sediments at Indiana Harbor and Canal

Submitted pursuant to 40 CFR Section 761.61

Submitted to:

U.S. Environmental Protection Agency
Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

and

Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, Indiana 46204

Prepared by:

U.S. Army Corps of Engineers
Chicago District
Hydraulics and Environmental Engineering Section
231 S. LaSalle St, Suite 1500
Chicago, Illinois 60604

March 2014
updated figures December 2016

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO IL 60606-7206

REPLY TO
ATTENTION OF

Planning, Programs & Project Management Division
Programs and Project Management Branch

Ms. Laura Lodisio
U.S. Environmental Protection Agency
Waste, Pesticides and Toxics Division (D-8J)
Northwest Indiana Coordinator
77 West Jackson Boulevard
Chicago, Illinois 60604

APR 17 2006

Dear Ms. Lodisio,

The U.S. Army Corps of Engineers (USACE), Chicago District, (from hereafter referred to as the Chicago District) is submitting for your review and comment a copy of the Construction Documentation Report (CDR) for the Obstruction Removal Project. The Obstruction Removal Project was a component of the Indiana Harbor and Canal (IHC) Dredging and Disposal Project, which includes the construction, operation and closure of the IHC confined disposal facility (CDF) in East Chicago, Indiana. This CDR includes as-built drawings and a four volume set of documentation containing construction specification documents, field and laboratory test results, and quality assurance records. A hard copy of the four volume report and as-built drawings as well as three compact disks (CDs) with these documents and drawings in portable document file (*.pdf) format have been enclosed with this letter. Disc 1 of 2 contains the four volume set of documentation, and Disc 2 of 2 has the as-built drawings submitted by the contractor. The third CD contains the as-built drawings signed by the Chicago District and the contract specifications.

For a short introduction to the IHC Dredging and Disposal Project and a brief description and history of the site, please refer to the previous CDR for the slurry wall: Subsurface Investigation and Cutoff Wall, dated July 2005, which the Chicago District submitted for your review in August 2005. As mentioned in the CDR for the slurry wall, the IHC CDF is being constructed on a site formerly occupied by a petroleum products refinery, and the site requires Resource, Conservation and Recovery Act (RCRA) corrective action and closure. In addition, based on historical sediment characterization, it is anticipated that a portion of the dredged material to be placed in the IHC CDF will require Toxic Substances Control Act (TSCA) regulation. The IHC CDF is a unique construction project, because the placement of the final cap and the application for closure of the site is not anticipated until approximately 30 years after the completion of the main CDF construction and the commencement of dredged material placement. Due to the extended timeframe for this project, the large amount of information for each construction feature, and the potential for changes to regulations over the project lifetime, it was determined that it would facilitate the regulatory review process if the documentation for each construction feature was submitted incrementally. Consequently, the Chicago District is providing a CDR upon the conclusion of each component of CDF construction, and the primary purpose of the CDR is to confirm with the regulatory agencies that the construction feature and associated documentation adequately satisfies the appropriate regulatory requirements.

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As described in the previously submitted CDR for the slurry wall, the Chicago District is in the process of installing a low permeability vertical barrier and groundwater gradient control system around the site to prevent the migration of contaminated groundwater. The slurry wall CDR contained the information regarding the installation of the vertical barrier along the western, northern and eastern perimeter of the site. During the initial slurry wall construction, two sections of the wall could not be installed, because the Chicago District was unable to obtain the right-of-way to portions of the property owned by a railway company. The right-of-way to this property was subsequently acquired by the Chicago District, and the slurry wall construction to complete the gaps in the wall is currently in progress. The plans and specifications for the Slurry Wall Gaps Construction Project were recently submitted to your agency with a correspondence dated March 31, 2006. After the Slurry Wall Gaps Construction Project is finished, the vertical barrier will be complete along the western, northern and eastern perimeter of the site. The vertical barrier along the southern perimeter of the site (South Cutoff Wall) and the groundwater gradient control system are currently in the design stage, and it is anticipated that the plans and specifications for these construction features shall be submitted for your review later this year.

When the former refinery was in operation, pipelines from the main refinery site were used to transport various petroleum products to and from an above ground storage tank farm that was located directly across the Lake George Branch of the canal, on the south side of the canal. In 2001, the U.S. Environmental Protection Agency (USEPA) Region V Environmental Rapid Response Services (ERRS) initiated removal/closeout of the pipelines to address recurring oil sheens and free product that was observed in the area. The USEPA Region V ERRS procured a contract with Environmental Quality Management, Inc. to remove/closeout the pipelines and with the Roy F. Weston, Inc. Superfund Technical Assessment and Response Team (START) to provide oversight for the project. Segments of the pipes were removed from the subsurface north of the canal, the free residual petroleum was removed from the pipes, and the pipes were then capped. However, several pipes remained beneath the Lake George Branch of the canal, traveling from the former main refinery site to the former tank farm on the south side of the canal. Therefore, in order to construct the South Cutoff Wall, these pipeline obstructions located along the proposed path for the wall needed to be removed, and this CDR primarily provides the information for the removal of these pipeline obstructions. The Chicago District procured a contract with Environmental Quality Management, Inc., the same contractor used previously by the USEPA, to perform the obstruction removal.

The closure report and associated drawing, CDR-1, in Volume 2 of the CDR provides a description of the work performed during the Obstruction Removal Project. First, approximately 10.6 acres of the southern portion of the IHC CDF project site was cleared of surface obstructions, such as pits, vaults, pipes, bollards, hydrants, and other miscellaneous items. After the southern area was cleared, bumpers were removed from the face of the existing sheet pile wall. Finally, segments of pipe were removed from three distinct areas in the Lake George Branch of the canal. The pipe segment removal involved the construction of a coffer dam using driven steel sheet piling, the dredging of sediment to expose the pipes, and the use of divers to cut the pipe segments. Prior to construction of the coffer dam, a turbidity curtain was placed

around the area to minimize sediment resuspension. The pipes were located approximately 25 feet below the water surface, underneath 15 to 20 feet of sediment.

Following your technical and regulatory assessment, the Chicago District respectfully requests your written comments on the adequacy of the CDR and the Obstruction Removal Project within 45 days from the date on this letter. If your agency does not have comments, please provide a written response that the CDR was reviewed and there were no comments. If you have any questions or concerns, or feel that more time may be required to complete your review, feel free to contact the undersigned at (312) 846-5558. Technical comments or questions may be addressed to Richard Saichek, Hydraulics and Environmental Engineering Section, at (312) 846-5507, or by e-mail to richard.e.saichek@usace.army.mil.

Sincerely,

Joanne M. Milo

Joanne M. Milo
Project Manager

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
D-8J

June 27, 2006

Joanne Milo, Project Manager
Department of the Army
Chicago District, U.S. Army Corps of Engineers
111 North Canal Street
Chicago, IL 60606-7206

Dear Ms. Milo:

This is in response to your letter dated April 17, 2006. The letter requested review and written comments of the Construction Documentation Report for the Obstruction Removal Project, which is a component of the Indiana Harbor and Canal Dredging and Disposal Project, which includes the construction and operation of the confined disposal facility in East Chicago, Indiana.

Staff has reviewed the supporting construction documents in terms of whether the construction could meet the requirements of the Toxic Substance Control Act (TSCA), for disposal of regulated polychlorinated biphenyls (PCBs) in the confined disposal facility (CDF). Comments are below.

- The areas where the pipes were removed were backfilled with limestone. These limestone filled trenches are potential pathways for transmission of water and contaminants. USCOE should evaluate what impact this has on the slurry wall system.

- It would be helpful to have a diagram showing where the pipes were removed relative to the slurry wall in order to determine where the limestone filled trenches are located with respect to the slurry wall.

In regard to the Resource Conservation and Recovery Act issues; as noted previously, the Indiana Department of Environmental Management (IDEM) is the lead agency for the RCRA closure and corrective action activities at the Energy Cooperative Incorporated (ECI) site in East Chicago, Indiana, pursuant to delegation authority under RCRA

Once again, please be advised that the United States Environmental Protection Agency cannot make any final determinations on the issuance of a TSCA permit for the site until we have received a complete application and are able to review all of the documentation regarding construction, operation and maintenance of the site.

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Thank you for this opportunity to comment. If you have technical questions regarding the above comments please contact Jean Greensley at (312) 353-1171 or you can contact me at (312) 886-7090.

Sincerely,

Laura L. Lodisio

Laura L. Lodisio
Waste, Pesticides and Toxics Division

cc: Jay Semler, USACE
Richard Saichek, USACE
Steve West, IDEM

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

CERTIFICATE OF APPROVAL
CONSTRUCTION IN A FLOODWAY

MAILED FEB 01 2005

APPLICATION # : FW-22792

STREAM : Indiana Harbor Canal

APPLICANT : East Chicago Waterway Management District
Christine Brooks, Director
4522 Indianapolis Boulevard
East Chicago, IN 46312-3227

AGENT : US Army Corps of Engineering, Chicago District
Bill White, Project Manager
111 North Canal Street, Suite 600
Chicago, IL 60606

AUTHORITY : IC 14-28-1 with 312 IAC 10 and IC 14-29-1 with 312 IAC 6

DESCRIPTION : A 260' by 2200' area along the north bank of the Lake George Canal will be cleared of obstructions. A 75' by 2200' area in the Lake George Canal will also be cleared of obstructions. Sections of 12 pipes, crossing the canal in 3 areas, will be removed from the bottom of the canal. A steel-sheet piling box will be temporarily constructed in each area where the pipes are being removed. A silt-curtain will be used during each driving and removal of the pilings of the box. The pipes are located approximately 25' below the water level, underneath 15' to 20' of sediment. The sediment will be mechanically dredged from inside the box to the top of the pipes using a modified clamshell to minimize resuspension. A 10' section (minimum) of each pipe will be cut and removed. The silt-curtain may be removed from around the box, unless excessive silt leaks from the box. Dredged sediment from the canal will be transported to an off-site treatment, storage, and disposal facility. Other debris removed from the canal will be transported to an upland detention area approximately 1600' to 2050' north of the Lake George Canal. Details of the project are contained in information and plans received at the Division of Water on March 18, 2004 and November 23, 2004.

LOCATION : DOWNSTREAM: The northern project limit is 260' landward from the sheet piles in the Lake George Canal and the south limit is 75' into the canal. The project extends west to the CSX Railroad spur and east to Indianapolis Boulevard near East Chicago, North Township, Lake County
S½, S½, NW¼, Section 20, T 37N, R 9W, Lake Calumet, IL-IN Quadrangle
UTM Coordinates: Downstream 4610473 North, 459972 East
UPSTREAM:
UTM Coordinates: Upstream 4610485 North, 459317 East

APPROVED BY : _____
James J. Hebenstreit, P.E., Assistant Director
Division of Water

APPROVED ON : February 1, 2005

Attachments: Notice Of Right To Administrative Review
General Conditions
Special Conditions
Service List

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF RIGHT TO ADMINISTRATIVE REVIEW

APPLICATION #: FW- 22792

This signed document constitutes the issuance of a permit by the Department of Natural Resources, subject to the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

The permit or any of the conditions or limitations which it contains may be appealed by applying for administrative review. Such review is governed by the Administrative Orders and Procedures Act, IC 4-21.5, and the Department's rules pertaining to adjudicative proceedings, 312 IAC 3-1.

In order to obtain a review, a written petition must be filed with the Division of Hearings within 18 days of the mailing date of this notice. The petition should be addressed to:

Mr. Stephen L. Lucas, Director
Division of Hearings
Room W272
402 West Washington Street
Indianapolis, Indiana 46204

The petition must contain specific reasons for the appeal and indicate the portion or portions of the permit to which the appeal pertains.

If an appeal is filed, the final agency determination will be made by the Natural Resources Commission following a legal proceeding conducted before an Administrative Law Judge. The Department of Natural Resources will be represented by legal counsel.

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

GENERAL CONDITIONS

APPLICATION #: FW- 22792

(1) If any archaeological artifacts or human remains are uncovered during construction, federal law and regulations (16 USC 470, et seq.; 36 CFR 800.11, et al) and State Law (IC 14-21-1) require that work must stop and that the discovery must be reported to the Division of Historic Preservation and Archaeology within 2 business days.

Division of Historic Preservation and Archaeology
Room W274
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-1646, FAX: (317) 232-8036

(2) This permit must be posted and maintained at the project site until the project is completed.

(3) This permit does not relieve the permittee of the responsibility for obtaining additional permits, approvals, easements, etc. as required by other federal, state, or local regulatory agencies.These agencies include, but are not limited to:

Agency	Telephone Number
*US Army Corps of Engineers, Detroit District	(313) 226-2218
Lake County Drainage Board	(219) 755-3755
Little Calumet River Basin Development Commission	(219) 763-0696
Indiana Department of Environmental Management	(317) 233-8488 or (800) 451-6027
Local city or county planning or zoning commission	

(4) This permit must not be construed as a waiver of any local ordinance or other state or federal law.

(5) This permit does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.

(6) This permit may be revoked by the Department of Natural Resources for violation of any condition, limitation or applicable statute or rule.

(7) This permit shall not be assignable or transferable without the prior written approval of the Department of Natural Resources. To initiate a transfer contact:

Mr. Michael W. Neyer, PE, Director
Division of Water
Room W264
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-4160, Toll Free: (877) 928-3755
FAX: (317) 233-4579

(8) The Department of Natural Resources shall have the right to enter upon the site of the permitted activity for the purpose of inspecting the authorized work.

(9) The receipt and acceptance of this permit by the applicant or authorized agent shall be considered as acceptance of the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 22792

PERMIT VALIDITY : This permit is valid for 24 months from the "Approved On" date shown on the first page. If work has not been initiated by February 01, 2007 the permit will become void and a new permit will be required in order to continue work on the project.

This permit becomes effective 18 days after the "MAILED" date shown on the first page. If both a petition for review and a petition for a stay of effectiveness are filed before this permit becomes effective, any part of the permit that is within the scope of the petition for stay is stayed for an additional 15 days.

CONFORMANCE : Other than those measures necessary to satisfy the "General Conditions" and "Special Conditions", the project must conform to the information received by the Department of Natural Resources on: March 18, 2004 and November 23, 2004. Any deviation from the information must receive the prior written approval of the Department.

Number	Special Condition
(1)	revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion
(2)	minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush
(3)	appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized
(4)	seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation) or use an appropriate structural armament; seed and apply mulch on all other disturbed areas
(5)	some fish mortality can be expected and is acceptable provided the fish killed are within the coffer dam area; if the kill spreads beyond the coffer dams the ACOE should contact Max Michael of IDEM at 317-233-8466 or Wayne Faatz of IDNR/ Division of Fish and Wildlife at 317-232-4098 and Frank Veraldi of ACOE at 312-846-5589
(6)	if for some reason free product (oil or its byproducts) is released outside the coffer dam area, ACOE should take measures to contain it and any resultant fish kill
(7)	except for the material used as fill as shown on the above referenced project plans on file at the Division of Water, place all excavated material landward of the floodway *
(8)	all work must conform with the existing bank at the upstream and downstream limits of the project site
(9)	do not leave felled trees, brush, or other debris in the floodway *
(10)	all riprap placed for bank stabilization must conform to the bank

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 22792

(11) upon completion of the project, remove all construction debris from the floodway *

(12) a silt curtain must be in place around the immediate work area prior to and during the driving and removal of the individual sheet steel pilings making up the four sides of the temporary sheet steel piling box to trap sediment; also, a silt curtain must be in place prior to and during the relocation or removal of any existing toe-stones along the existing wall

(13) a silt curtain is required for any other in water work that is not contained within the confines of the temporary sheet steel piling box

(14) *Note: for regulatory purposes, the floodway is defined as the area inundated by the 100-year frequency flood as shown on Panel 3 of the City of East Chicago Flood Boundary Floodway Map dated June 4, 1980

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SERVICE LIST

APPLICATION #: FW- 22792

East Chicago Waterway Management District
Christine Brooks, Director
4522 Indianapolis Boulevard
East Chicago, IN 46312-3227

US Army Corps of Engineering, Chicago District
Bill White, Project Manager
111 North Canal Street, Suite 600
Chicago, IL 60606

*US Army Corps of Engineers, Detroit District
Gary Mannesto
Regulatory Functions Branch
PO Box 1027
Detroit, MI 48231-1027

Lake County Drainage Board
County Surveyor
County Government Center
2293 North Main Street
Crown Point, IN 46307-1854

Little Calumet River Basin Development Commission
Dan Gardner, Executive Director
6100 Southport Road
Portage, IN 46368-6409

*Indiana Department of Natural Resources
North Region Headquarters Dist 10
Division of Law Enforcement
1124 North Mexico Road
Peru, IN 46970

Steve Davis
Indiana Department of Natural Resources
100 West Water Street
Michigan City, IN 46360-1310

East Chicago Plan Commission
4225 Indianapolis Boulevard
East Chicago, IN 46312

Lake County Board of Commissioners
2293 North Main Street
Crown Point, IN 46307-1854

Lake County Soil and Water Conservation District
928 South Court Street, Suite C
Crown Point, IN 46307-4848

Staff Assignment:

Administrative	: R. Tony Scott
Technical	: R. Tony Scott
Environmental	: Christie L. Kiefer

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.idem.IN.gov

October 2, 2006

Ms. Joanne Milo
Project Manager
U. S. Army Corps of Engineers
Chicago District
111 North Canal Street
Chicago, IL 60606-7206

Re: Obstructions Removal Construction Documentation Report
Indiana Harbor Navigation Dredging Project
Lake County, Indiana

Dear Ms. Milo:

The Indiana Department of Environmental Management (IDEM) acknowledges receipt of the Obstructions Removal Construction Documentation Report for the Subsurface Investigation and Cutoff Wall, dated April 17, 2006. IDEM approves this document as submitted.

If you have any questions, you may contact me at 317/233-8905.

Sincerely,

Stephen West
Watershed Specialist
Coastal Zone
Office of Water Quality

cc: Ms. Laura Lodisio, U. S. EPA, Region V
Ms. Ruth Jean, OLQ

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO IL 60606-7206

REPLY TO
ATTENTION OF

Planning, Programs & Project Management Division
Programs and Project Management Branch

Ms. Laura Lodisio
U.S. Environmental Protection Agency
Waste, Pesticides and Toxics Division (D-8J)
Northwest Indiana Coordinator
77 West Jackson Boulevard
Chicago, Illinois 60604

OCT 16 2006

Dear Ms. Lodisio,

This letter is in response to comments the U.S. Environmental Protection Agency (USEPA) submitted in a correspondence, dated June 27, 2006 (enclosed), regarding the construction document report (CDR) for the obstruction removal project. The first comment concerns areas from which the pipes were removed, the placement of limestone backfill, and the potential impact the backfill might have on the slurry wall system. There was a concern that the limestone backfilled trenches would be a potential pathway for water and contaminants. In addition, the correspondence suggested that it would be helpful to have a diagram showing where the pipes were removed relative to the slurry wall in order to determine where the limestone filled trenches are located with respect to the slurry wall.

The slurry wall has been installed along the western, northern, and eastern sides of the confined disposal facility (CDF) site, and the purpose of the obstruction removal project was to clear a path for the south cutoff wall along the southern end of the CDF site. Figure 1 has been enclosed with this letter to illustrate the approximate locations of the south cutoff wall and the slurry wall. The slurry wall alignment is shown by a turquoise dotted line along the western, northern, and eastern sides of the CDF site, and the south cutoff wall is shown by a solid turquoise line along the southern end of the CDF site. It is important to note that the line size has been exaggerated in relation to the scale of the drawing for illustration purposes. Figure CDR-1, which was included with the closure report in the obstruction removal CDR, provides the locations from which the pipes and other obstructions along the southern end of the site (adjacent to the Lake George Branch of the Canal) were removed. This closure report is located on the first disk in Volume 2 of the obstruction removal CDR. Since the backfilled trenches are located along the southern side of the site, and the slurry wall is located along the western, northern, and eastern sides of the site, the trenches will not impact the slurry wall.

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A copy of this letter has been furnished to Mr. Stephen West, Watershed Specialist, Coastal Zone, Office of Water Quality, at the Indiana Department of Environmental Management (IDEM), 100 North Senate Avenue, Indianapolis, Indiana 46204. If you have any questions or comments regarding this response, please provide them within 30 days from the date on this letter. Feel free to contact the undersigned at (312) 846-5558, or technical questions or concerns may be addressed to Richard Saichek, Hydraulics and Environmental Engineering Section, at (312) 846-5507, or by e-mail to richard.e.saichek@usace.army.mil.

Sincerely,

Joanne M. Milo

Joanne M. Milo
Project Manager

Enclosures

Copy Furnished
Mr. Stephen West (IDEM) (with enclosures)

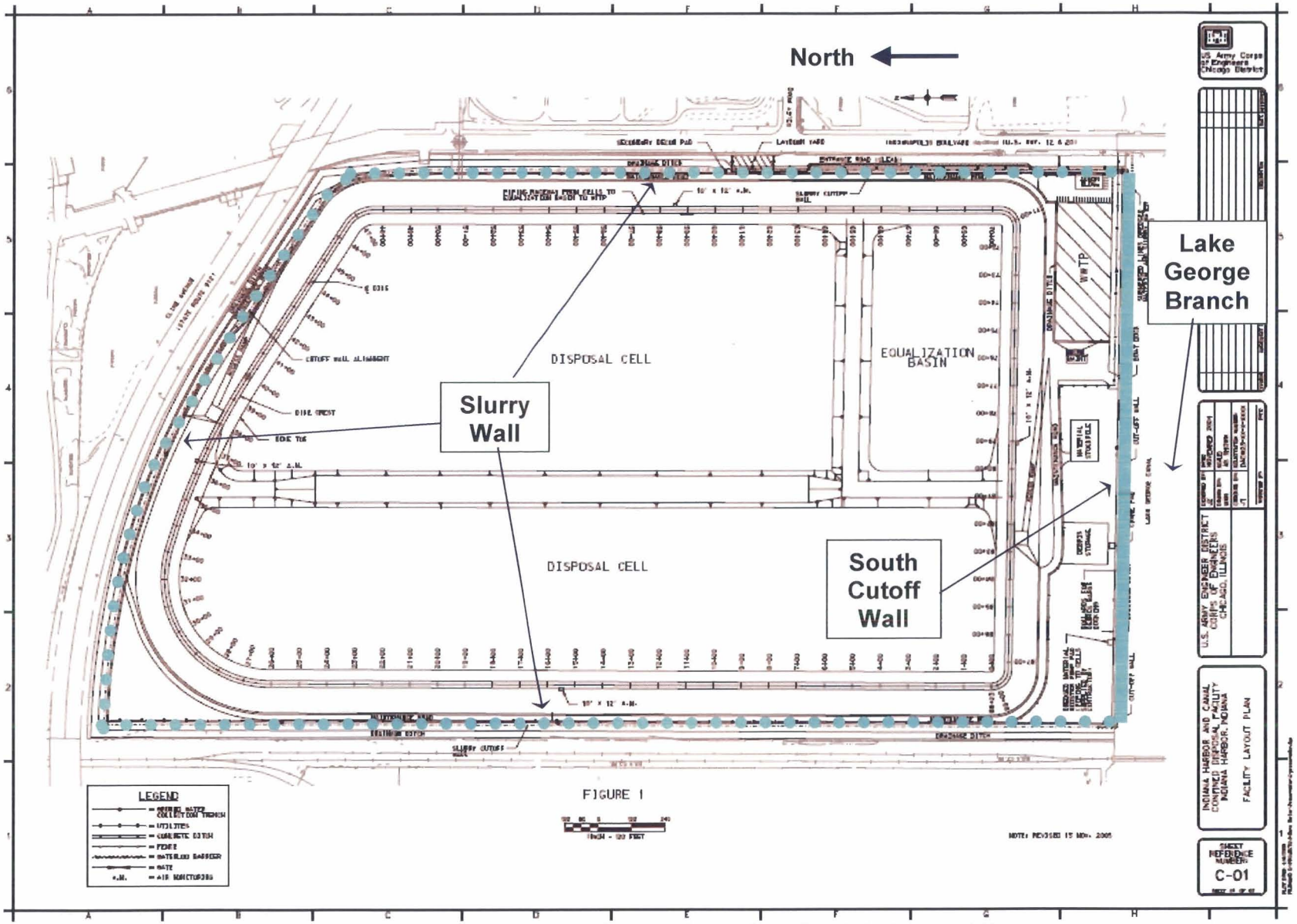

Figure 1 – Approximate Locations of the South Cutoff Wall and the Slurry Wall

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
D-8J

June 27, 2006

Joanne Milo, Project Manager
Department of the Army
Chicago District, U.S. Army Corps of Engineers
111 North Canal Street
Chicago, IL 60606-7206

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Sincerely,

Laura L. Lodisio

Laura L. Lodisio
Waste, Pesticides and Toxics Division

cc: Jay Semler, USACE
Richard Saichek, USACE
Steve West, IDEM

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO IL 60606-7206

REPLY TO
ATTENTION OF

Planning, Programs & Project Management Division
Programs and Project Management Branch

Mr. Steve West
Indiana Department of Environmental Management
Sediment Remediation Program Coordinator
Office of Water Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

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As described in the previously submitted CDR for the slurry wall, the Chicago District is in the process of installing a low permeability vertical barrier and groundwater gradient control system around the site to prevent the migration of contaminated groundwater. The slurry wall CDR contained the information regarding the installation of the vertical barrier along the western, northern and eastern perimeter of the site. During the initial slurry wall construction, two sections of the wall could not be installed, because the Chicago District was unable to obtain the right-of-way to portions of the property owned by a railway company. The right-of-way to this property was subsequently acquired by the Chicago District, and the slurry wall construction to complete the gaps in the wall is currently in progress. The plans and specifications for the Slurry Wall Gaps Construction Project were recently submitted to your agency with a correspondence dated March 31, 2006. After the Slurry Wall Gaps Construction Project is finished, the vertical barrier will be complete along the western, northern and eastern perimeter of the site. The vertical barrier along the southern perimeter of the site (South Cutoff Wall) and the groundwater gradient control system are currently in the design stage, and it is anticipated that the plans and specifications for these construction features shall be submitted for your review later this year.

When the former refinery was in operation, pipelines from the main refinery site were used to transport various petroleum products to and from an above ground storage tank farm that was located directly across the Lake George Branch of the canal, on the south side of the canal. In 2001, the U.S. Environmental Protection Agency (USEPA) Region V Environmental Rapid Response Services (ERRS) initiated removal/closeout of the pipelines to address recurring oil sheens and free product that was observed in the area. The USEPA Region V ERRS procured a contract with Environmental Quality Management, Inc. to remove/closeout the pipelines and with the Roy F. Weston, Inc. Superfund Technical Assessment and Response Team (START) to provide oversight for the project. Segments of the pipes were removed from the subsurface north of the canal, the free residual petroleum was removed from the pipes, and the pipes were then capped. However, several pipes remained beneath the Lake George Branch of the canal, traveling from the former main refinery site to the former tank farm on the south side of the canal. Therefore, in order to construct the South Cutoff Wall, these pipeline obstructions located along the proposed path for the wall needed to be removed, and this CDR primarily provides the information for the removal of these pipeline obstructions. The Chicago District procured a contract with Environmental Quality Management, Inc., the same contractor used previously by the USEPA, to perform the obstruction removal.

The closure report and associated drawing, CDR-1, in Volume 2 of the CDR provides a description of the work performed during the Obstruction Removal Project. First, approximately 10.6 acres of the southern portion of the IHC CDF project site was cleared of surface obstructions, such as pits, vaults, pipes, bollards, hydrants, and other miscellaneous items. After the southern area was cleared, bumpers were removed from the face of the existing sheet pile wall. Finally, segments of pipe were removed from three distinct areas in the Lake George Branch of the canal. The pipe segment removal involved the construction of a coffer dam using driven steel sheet piling, the dredging of sediment to expose the pipes, and the use of divers to cut the pipe segments. Prior to construction of the coffer dam, a turbidity curtain was placed

around the area to minimize sediment resuspension. The pipes were located approximately 25 feet below the water surface, underneath 15 to 20 feet of sediment.

Following your technical and regulatory assessment, the Chicago District respectfully requests your written comments on the adequacy of the CDR and the Obstruction Removal Project within 45 days from the date on this letter. If your agency does not have comments, please provide a written response that the CDR was reviewed and there were no comments. If you have any questions or concerns, or feel that more time may be required to complete your review, feel free to contact the undersigned at (312) 846-5558. Technical comments or questions may be addressed to Richard Saichek, Hydraulics and Environmental Engineering Section, at (312) 846-5507, or by e-mail to richard.e.saichek@usace.army.mil.

Sincerely,

Joanne M. Milo

Joanne M. Milo
Project Manager

Enclosures

INDIANA HARBOR PIPELINE REMOVAL REPORT
FOR
INDIANA HARBOR CANAL PILOT PROJECT SITE
EAST CHICAGO, INDIANA

TDD No. 0110-001
Document Control No. 175-2A-ABOZ

April 2002

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

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INDIANA HARBOR PIPELINE REMOVAL REPORT
FOR
INDIANA HARBOR CANAL PILOT PROJECT SITE
EAST CHICAGO, INDIANA

TDD No. 0110-001
Document Control No. 175-2A-ABOZ

April 2002

Approved By: _____ Date: 4-2-02
Don Paxton
Site Leader

Approved By: _____ Date: 4/2/02
Heidi Gorrill
Project Manager

Approved By: _____ Date: 4/2/02
Dean Geers
Program Manager

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1.0 INTRODUCTION

U.S. Environmental Protection Agency Region V On-Scene Coordinator (OSC) Betty Lavis tasked Environmental Rapid Response Services (ERRS) contractor Environmental Quality Management (EQ) to perform a removal/closeout of selected pipelines on the Main Refinery (MR) and South Tank Farm (STF) parcels of the ARCO/ECI property located in East Chicago, Lake County, Indiana. The OSC directed the Roy F. Weston, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START) to provide oversight and document site activities. The pipeline removal/closeout was performed as part of the Indiana Harbor Canal Pilot Project Site during 9 October 2001 through 13 December 2001. The OSC initiated the closeout of the pipelines to address the recurring oil sheens and product that were observed in the canal between containment booms which section off portions of the Lake George Branch of the Indiana Harbor Ship Canal between parcels of the former ARCO/ECI refinery.

2.0 SITE DESCRIPTION

2.1 LOCATION

The ARCO/ECI property is located along Indianapolis Boulevard in East Chicago, Lake County, Indiana. The property is bisected into north and south portions by the Lake George Branch of the Indiana Harbor Ship Canal as illustrated on Figure 1, Site Location Map. The geographical coordinates of the ARCO/ECI property are N 41° 38' 47.29134" latitude and W 87° 29' 20.39883" longitude with an altitude of 482.293 feet above mean sea level. These coordinates were determined on-site with a Trimble Pathfinder Global Positioning System unit.

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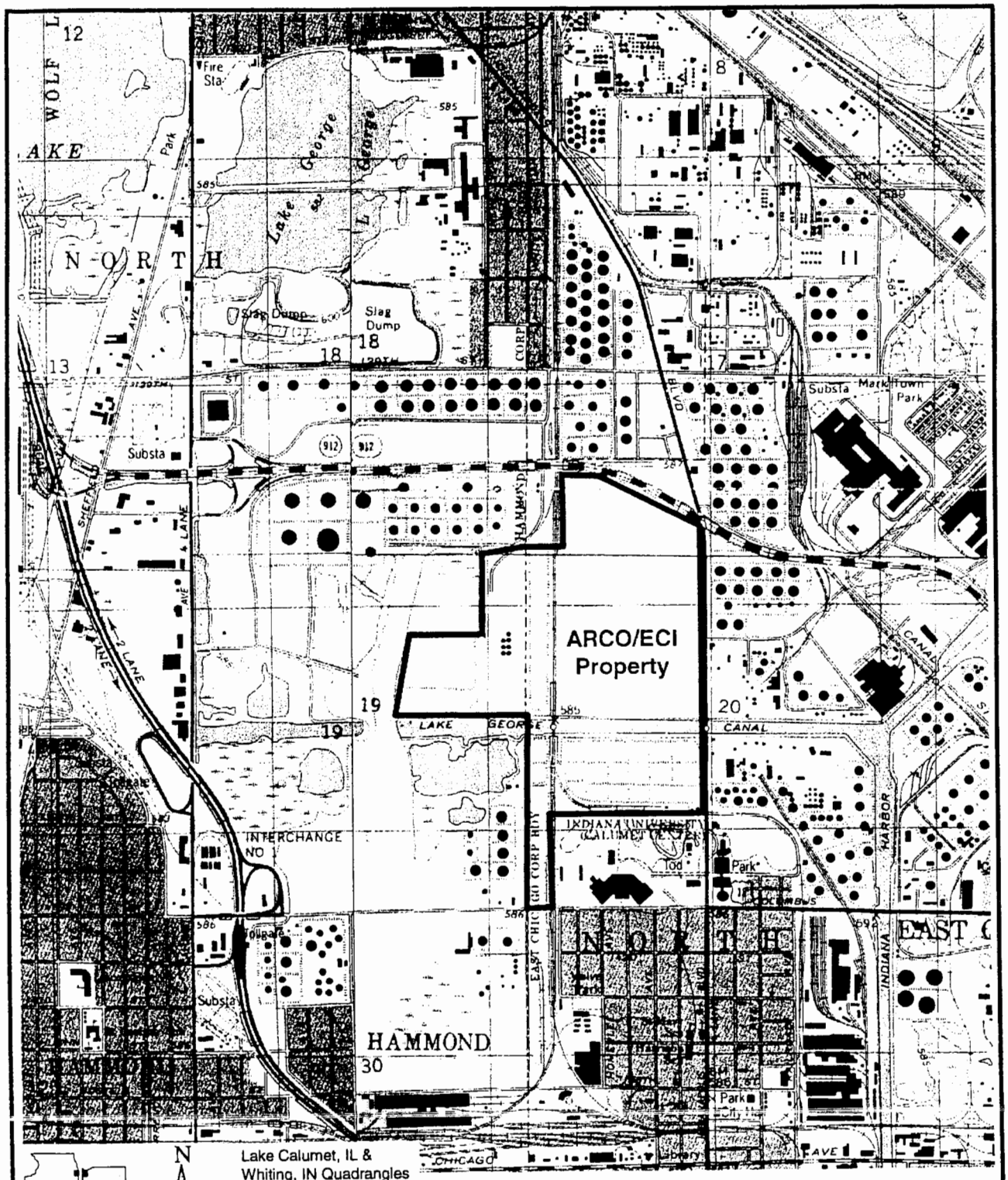

Figure 1

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750 E. Bunker Ct.
Suite 500
Vernon Hills, Illinois
60061

SITE LOCATION MAP

INDIANA HARBOR CANAL PILOT PROJECT

East Chicago, Lake County, Indiana

2.2 SITE CONDITIONS

The ARCO/ECI site is a former petroleum refinery which was active from 1918 to1984. The facility was decommissioned and demolished between 1986 and 1990 (ARCADIS, 2000). The ARCO/ECI property is enclosed by chain link fence that encompasses the former Main Refinery (MR), South Tank Farm, Southwest Tank Farm, and the West Tank Farm parcels. The property is intersected by the Lake George Branch of the Indiana Harbor Ship Canal, which separates the Main Refinery and West Tank Farm parcels from the South Tank Farm (STF) and Southwest Tank Farm parcels. The site is also intersected by the Baltimore and Ohio Railroad, which separates the Main Refinery and South Tank Farm parcels from the West Tank Farm and Southwest Tank Farm parcels, respectively. Adjacent to the South Tank Farm to the south is East Chicago High School and a residential area. Indianapolis Boulevard borders the property to the east. ARCO/ECI parcel locations are illustrated in Figure 2.

The MR parcel consists of approximately 118 acres and is located north of the Lake George Branch of the Indiana Harbor Ship Canal. The MR contained all of the primary processing units for the former ARCO/ECI refinery. Currently, the vacant parcel has revegetated with grasses and trees. A product recovery system operates on the parcel along the canal and is maintained by ARCO's contractor ARCADIS. The canal mean pool elevation level (average between lake effect levels) is approximately 10 feet below the ground elevation of the MR parcel. The southern wall of the MR parcel is constructed of corrugated steel sheetpiling that was driven to a 60-foot depth below ground surface (bgs).

The STF parcel consists of approximately 53.5 acres and is located south of the MR and the Lake George Branch of the Indiana Harbor Ship Canal. The STF was formerly an above ground storage tank (AST) field with metering stations and pipeline pump stations. It was historically used for bulk storage of a wide variety of petroleum products, including crude oil, diesel fuel, fuel oil, leaded gasoline, unleaded gasoline, sludge/slop, and other miscellaneous products (ARCADIS, 2000). This vacant parcel has also revegetated with grasses and trees. A product recovery system operates on

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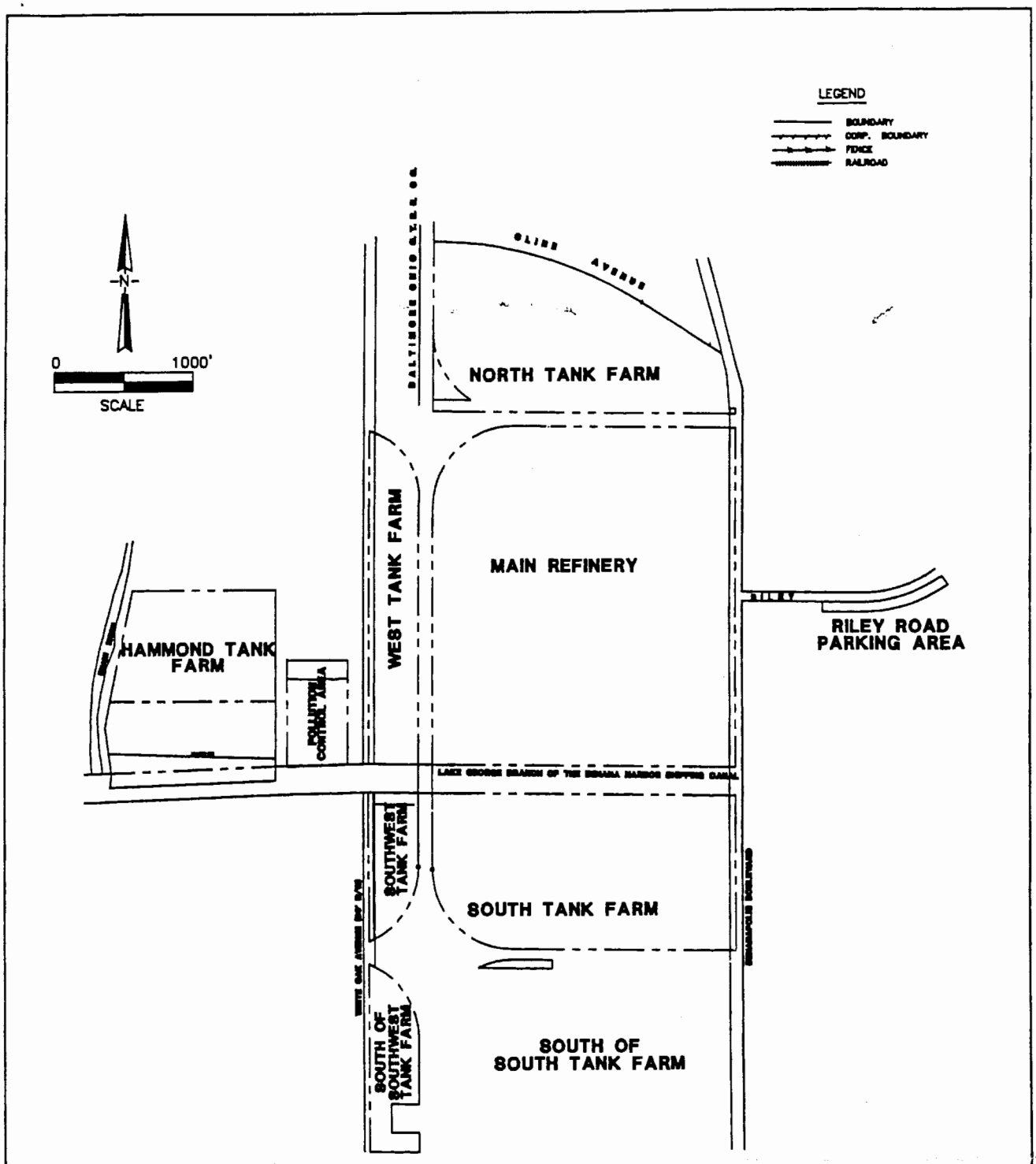

SOURCE: ARCADIS

FIGURE 2

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Vernon Hills, Illinois
60061

PARCEL LOCATION MAP
INDIANA HARBOR CANAL PILOT PROJECT SITE
USEPA
East Chicago, Indiana

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the parcel along the canal and is also maintained by ARCADIS. The northern boundary of the STF consists of concrete and re-bar demolition debris, which serves as a rip-rap type of embankment. The canal mean pool elevation level (average between lake effect levels) is approximately 6 feet below the ground elevation of the STF parcel.

During refinery operations, petroleum products were transported from the MR to the STF via pipelines that crossed under the Lake George Branch of the Indiana Harbor Ship Canal and pumped into the ASTs that occupied the STF parcel. These pipelines are constructed of approximately quarter-inch steel and ranged in diameter from 8 inches to 14 inches. Initially, the OSC tasked ERRS to remove five of the exposed pipelines that were visible via the canal during site walks and canal inspections START and the OSCs performed. Four approximately 14-inch-diameter exposed pipelines are located approximately 100 feet east of the Baltimore and Ohio Railroad bridge, and one approximately 8-inch exposed pipeline is located approximately 1,000 feet east of the four 14-inch-diameter pipelines and approximately 500 feet west of the Indianapolis Boulevard bridge (See Figure 3).

During pipeline removal activities, the U.S. Army Corps of Engineers and ARCADIS provided the OSC with pipeline blueprints, which revealed that there were up to 10 additional pipelines in a sheetpile bulkhead located approximately 22 feet west of the four exposed 14-inch-diameter pipelines on the MR parcel. From the dates listed on the blueprints ARCADIS provided, the bulkhead pipelines appeared to be older than the four 14-inch-diameter exposed pipelines. The bulkhead measures approximately 28 feet in width. From approximately 45 feet north of the canal wall, the pipelines descend at a 45 degree angle down towards the bottom of the canal. The pipelines cross through the canal-wall steel sheetpiling approximately 35 feet bgs, lie on the bottom of the canal in a pipeline alley crossing to the STF parcel, pass through a wooden bulkhead, ascend at a 45 degree angle, and surface approximately 60 feet south of the canal wall (wooden bulkhead) on the STF parcel.

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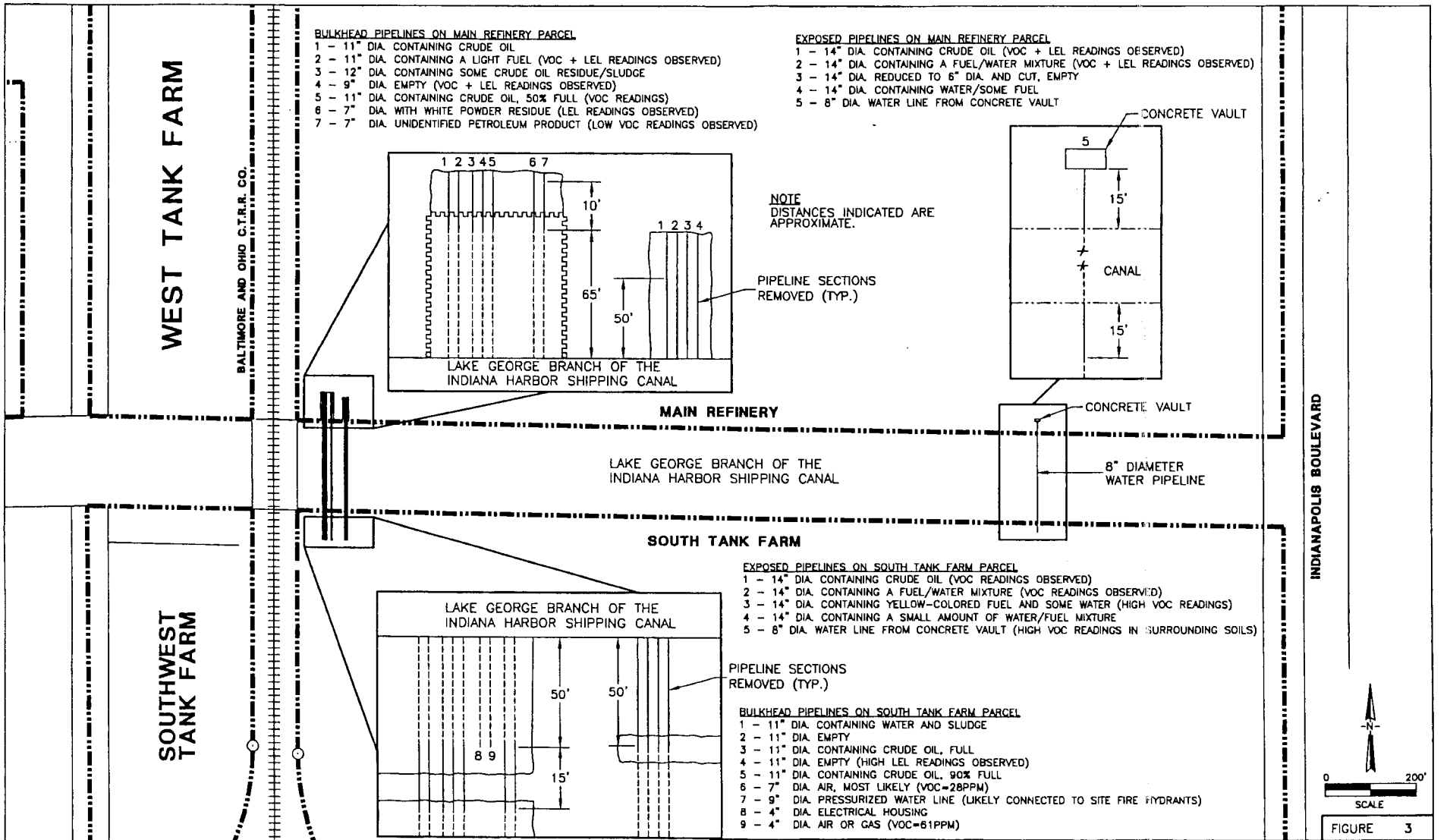

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3.0 PIPELINE REMOVAL

The OSC initiated the closeout of the pipelines to address the recurring oil sheens and product that were observed in the canal. The goal of the removal was to stop the pipelines from acting as a direct conduit for petroleum products to migrate from the STF and MR parcels into the canal. To accomplish this goal, the OSC planned a full removal of the pipelines from the canal. Due to anchoring, the pipeline sections that lie at the bottom of the canal could not be removed in a cost-effective manner. To close the conduit the pipelines created, the OSC alternately chose the removal of pipeline contents, decontamination, removal of pipeline sections on the parcels, and capping or grouting of the pipelines. The initial five exposed pipelines were closed out first, and then when the bulkhead pipelines were identified, the OSC continued removal operations to include the additional pipelines. The pipeline contents and locations are illustrated in Figure 3, and photo documentation of removal activities is located in Appendix A.

3.1 EXPOSED PIPELINE REMOVAL

The exposed pipeline removal was conducted from 9 October 2001 through 20 November 2001. ERRS began work by unearthing the four 14-inch-diameter pipelines on both sides of the canal using an excavator for the bulk of the cover soil and then by hand, with shovels.

3.1.1 South Tank Farm (STF) Parcel

On the STF, the pipelines were unearthed approximately 50 feet south of the canal. ERRS placed plastic sheeting in the excavation trenches to provide containment in the event of a spill. After the pipelines were wire-brushed on the top surface, threaded collars were welded onto each pipeline. A 1-foot section of pipe was used to connect the collar to a ball valve, and a pneumatic drill fitted with a quarter-inch drill bit was used to penetrate the pipeline. Cutting oil was used to reduce friction and potential sparking.

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Once the drill bit entered the pipeline and was removed, the valve which had been left open to facilitate drilling was closed if liquid began to exit through the new hole. The valve was opened slowly to bleed off pressure, if liquid continued to be forced up through the hole, the valve was closed again. A vacuum truck hose was placed over the valve, the valve was opened, and the liquids and vapor were removed from the pipeline. START performed continuous air monitoring and data logging during drilling and cutting procedures using a MultiRAE five gas detector and a MicroFID unit to monitor for hazardous atmospheres once pressure was relieved and liquids ceased to come out. If volatile organic compounds (VOCs) or lower explosive limit (LEL) readings were detected, the following actions were taken: For VOC readings exceeding 10.0 parts per million (ppm) sustained in the breathing zone, ERRS donned air purifying respirators (APRs) equipped with organic vapor cartridges. For LEL readings exceeding 10%, cutting operations immediately ceased and nitrogen gas was used to purge the inside of the pipeline and create an inert atmosphere.

After liquids ceased draining from the pipeline, a pneumatic drill was used to create two starter holes in the pipeline a few inches from the welded collar. A pneumatic saw was then used to cut a 6 by 6-inch square on the top of the pipeline. After the square piece was removed, a 4-inch-diameter vacuum truck hose was placed into the square hole to remove the remaining contents of the pipeline. Following contents removal, two cuts were made along the diameter of the pipeline to remove an approximately 4 to 6-inch-wide section. ERRS then continued this procedure for the other three 14-inch diameter pipelines. Next, the four pipelines were cut just before they made a 90 degree angle and proceeded into the canal (approximately 50 feet from the initial cut). Each 50-foot section of pipeline was then removed. The portion of the cut pipeline continuing into the STF parcel was then grouted closed. The portion of the pipeline leading into the canal was covered with thick clear plastic and duct taped to serve as a temporary cap. The temporary caps remained in place until pipeline cutting activities were completed on the MR parcel, the sections of pipeline that lie along the bottom of the canal could be decontaminated and permanent caps could be placed over the pipeline ends.

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The 8-inch diameter pipeline located approximately 1,000 feet to the east was collared, drilled, cut, contents pumped, and an approximately 15-foot section removed in the same manner as the four previously mentioned pipelines. Concrete grout was placed in both pipeline sections.

3.1.2 Main Refinery (MR) Parcel

The pipelines on the MR parcel were unearthed approximately 20 feet north of the canal. The same vacuuming, cutting, and grouting procedures used on the STF parcel were implemented on the MR to remove the contents of the pipelines. Approximately 25-foot sections of each of the four 14-inch-diameter pipelines were removed north of the canal. On the MR parcel, a concrete vault connected to the 8-inch pipeline was grouted closed, and a section approximately 15 feet in length was removed from between the canal wall and the vault.

3.1.3 Decontamination and Exposed Pipeline Closure

For the sections of pipeline which run along the bottom of the canal and were to remain in place, jetting with a high-pressure self-propulsion system was used for gross decontamination of the insides of the pipelines. This was used in conjunction with a vacuum truck to remove the decontamination water. After the pipelines were jetted, steel caps were placed over the ends of the pipelines on the STF parcel. On the MR parcel, the section of pipeline from the pipe fitting that connects the vertical portion of the pipeline extending out of the canal with the 90 degree angle and connects to the horizontal pipeline on the parcel was removed. Steel pipe caps were then bolted to the existing fitting on the portion of the pipeline remaining in the canal. Sections of 2-inch-diameter pipe were threaded vertically onto the collars of the remaining pipelines to mark the location and to allow for future monitoring of pipeline contents. After backfilling the excavation trenches with soil, the pipe sections threaded into the collars extended above the ground surface. Steel caps were threaded onto the tops of the pipeline markers. This procedure was done on both the MR and STF parcels to mark the locations of the pipelines.

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3.2 BULKHEAD PIPELINE REMOVAL

The bulkhead pipeline removal was conducted from 3 December through 13 December 2001. Upon unearthing of the bulkhead, seven pipelines were identified on the MR parcel and nine pipelines were identified on the STF parcel. The two additional pipelines on the STF parcel were an electrical wiring pipeline and an apparent air line. The tenth pipeline shown on the blueprints was never discovered. It was likely never installed and not corrected on the blueprint; ARCADIS did not have any recent blueprints that would have shown any changes made. Excavation trenches were made where the pipelines surfaced on both the MR and STF parcels.

ERRS used the same procedures implemented for the exposed pipeline removal/closeout for the removal/closeout of the bulkhead pipelines. The only difference from the exposed pipeline removal procedure was that only small sections of the bulkhead pipelines (approximately 10 feet long) were removed to prevent petroleum contaminants from being transported into the canal.

3.2.1 Decontamination and Pipeline Closure

During the jetting procedure, air bubbles were observed in the canal where the bulkhead pipelines crossed beneath it. This indicated that the integrity of the pipelines under the canal was poor and was likely introducing petroleum products into the canal, especially since the thickest sheens and most product were observed at this location in the canal during boating inspections. After the bulkhead pipelines were jetted and grouted in the same manner as the exposed pipelines, the excavation trench inside the bulkhead, housing the cut pipelines on the MR parcel, was backfilled with soil. Pipeline markers were attached to each pipeline to indicate the location of the bulkhead on the MR and STF parcels.

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4.0 PROJECT CLOSURE ACTIVITIES

On 12 December 2001, a crane was mobilized to the site in an attempt to remove the 8-inch-diameter pipeline that is approximately 500 feet west of the Indianapolis Boulevard Bridge and 1,000 feet east of the four exposed 14-inch-diameter pipelines. The OSC had initially planned for the removal of each whole pipeline from the canal but wanted to determine if this was feasible, since ARCO pipeline blueprints indicated anchoring underneath the canal. Several attempts made to pull the pipeline out of the canal failed and the pipeline was left grouted in place. No attempts were made on other pipelines.

During the pipeline removal operations, product and water vacuum pumped into vacuum trucks from the pipelines was transferred into fractioning tanks on both the MR and STF parcels. The contents of the fractioning tank on the STF parcel were removed using a vacuum truck and pumped into the fractioning tank on the MR parcel and allowed to settle. On 14 December 2001, approximately 5,000 gallons of product were removed from the tank and shipped off-site for disposal by Pollution Control Industries (PCI), located in East Chicago, Indiana. Approximately 2,500 gallons that remained in the fractioning tank were disposed of during the week of 17 December 2001 by PCI.

5.0 REFERENCES

U.S. Geological Survey (USGS) 7.5-Minute Topographic map, Lake Calumet Quadrangle Illinois 1997 and Whiting Quadrangle Indiana, 1997 and 1991.

ARCADIS, 2000. *Current Conditions Report - ARCO-ECI(Former Refinery) - East Chicago, Lake County, Indiana,* June 2000.

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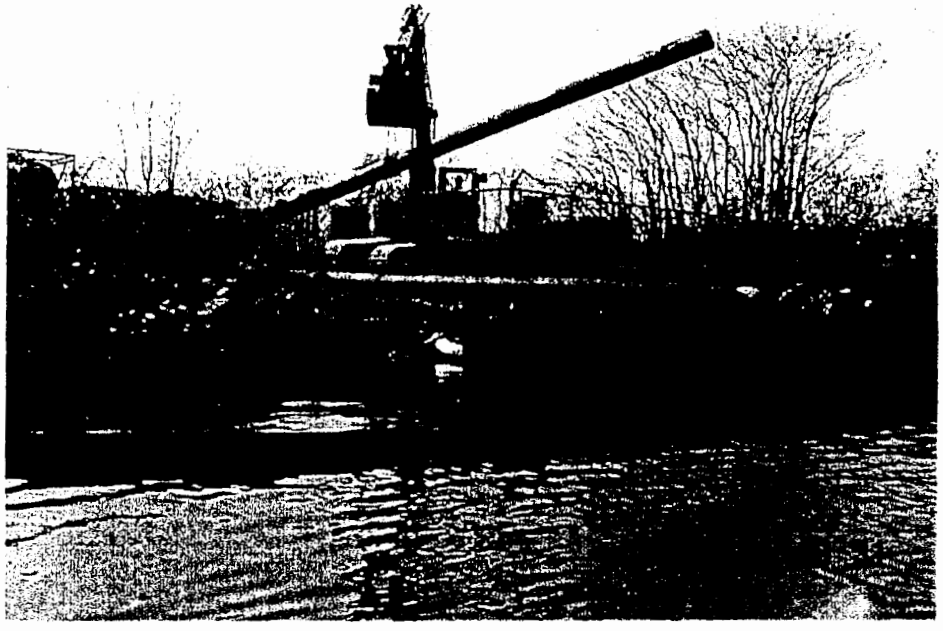
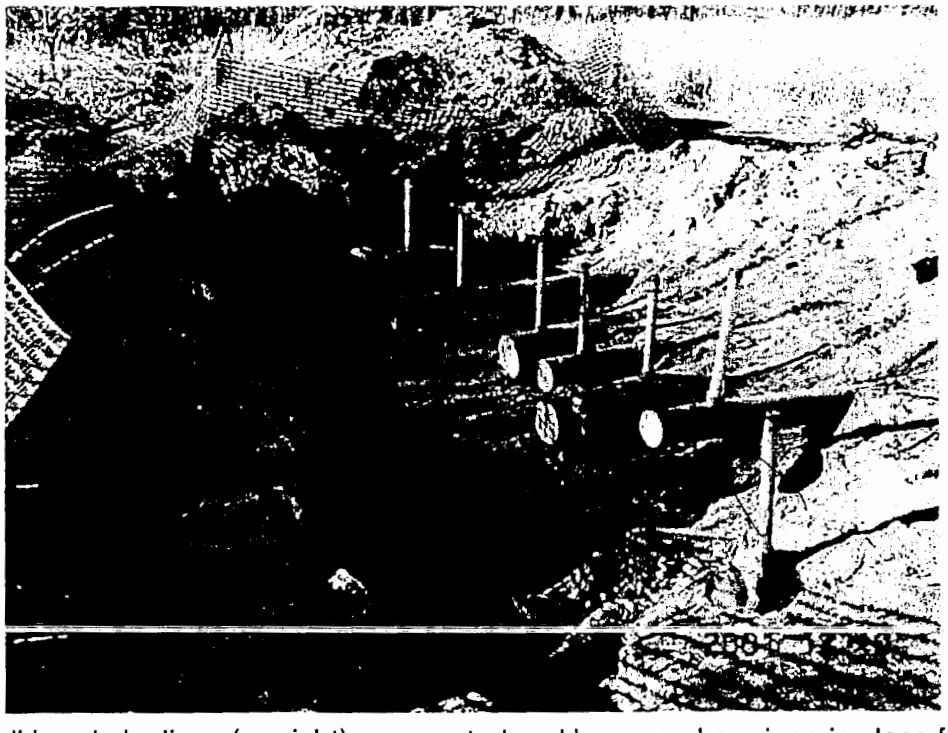
APPENDIX A

PHOTO DOCUMENTATION



ERRS removing 50 foot section of 14-inch diameter pipeline on the South Tank Farm parcel.



Bulkhead pipelines (on right) are grouted and have marker pipes in place for backfilling after canal side (on left) of pipelines are jet-washed and grouted.

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PHOTO DOCUMENTATION
INDIANA HARBOR CANAL PILOT PROJECT
East Chicago, Lake County, Indiana

Photo shows a Grouted pipeline on the Main Refinery parcel.

START performing air monitoring in pipeline with Micro FID and MultiRAE units to Determine the presence of volatile organic compounds or explosive vapors.

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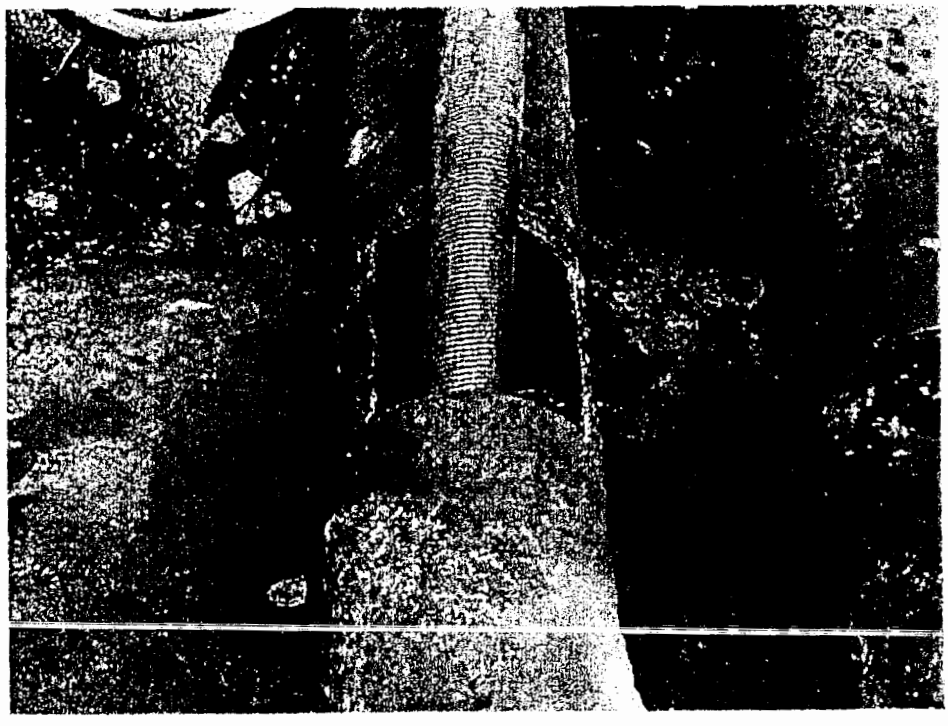
60061

PHOTO DOCUMENTATION

INDIANA HARBOR CANAL PILOT PROJECT

East Chicago, Lake County, Indiana

ERRS making initial cut to create a square hole with pneumatic saw.



Contents of pipeline being vacuum pumped.

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PHOTO DOCUMENTATION

INDIANA HARBOR CANAL PILOT PROJECT

East Chicago, Lake County, Indiana

ERRS removing soil surrounding pipelines on the Main Refinery parcel.

Welded collar with threading to receive pipe section and ball-valve.

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PHOTO DOCUMENTATION

INDIANA HARBOR CANAL PILOT PROJECT

East Chicago, Lake County, Indiana

Clean Water Act Section 404(b)(1) Contaminant Determination Report
for
Indiana Harbor and Canal
Obstruction Removal, for Waterloo Barrier Installation
East Chicago, Indiana

Prepared by:

U.S. Army Corps of Engineers, Chicago District
111 North Canal Street
Chicago, Illinois 60606-7206

February 23, 2004

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Figure 2: **Project Site Map**
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Figure 4: **Boring Locations** (Previous and Recent Investigations)

Table 1: **Soil Sample Chemical Analytical Testing Results** (Previous Investigation)
Table 2-5: **Sediment Chemical Testing Results** (Recent Investigation)
Table 6: **Detected Compounds Table** (Recent Investigation)

Appendix A: **Photos of Existing Sheet pile Wall**
Appendix B: **Scope of Work for Sediment Sampling and Analysis** (Recent Investigation)
Appendix C: **Soil Boring Logs and Field Notes** (Previous and Recent Investigations)
Appendix D: **Data Quality Assessment** (Recent Investigation)

Acronyms

ATV	all-terrain vehicle
CDF	confined disposal facility
CMP	comprehensive management plan
DDR	Design Documentation Report
DQA	Data Quality Assessment
ECI	Energy Cooperative, Inc.
ECWMD	East Chicago Waterway Management District
GCR	Grand Calumet River
IDEM	Indiana Department of Environmental Management
IHC	Indiana Harbor and Canal
IHC/GCR	Indiana Harbor and Canal / Grand Calumet River
LGB	Lake George Branch
MSL	mean sea level
PCB	polychlorinated biphenyl
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
SOW	scope of work
TCLP	toxicity characteristic leaching procedure
TSCA	Toxic Substances Control Act
TSDF	treatment, storage and disposal facility
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
WWTP	wastewater treatment plant

1. TIER 1

1.1 Approach

The U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE) have jointly developed the Great Lakes Dredged Material Testing and Evaluation Manual. This document outlines a structured, sequential approach to sediment evaluation and testing to determine if dredged sediment from harbors and rivers tributary to the Great Lakes may be disposed in open-waters of the Great Lakes.[1]

The objective of the tiered testing approach is to make optimal use of the resources in generating the required information for a factual determination of compliance with the Clean Water Act Section 404(b)(1), using an integrated chemical, physical, and biological approach.

1.1.1 Tier 1 Objectives

The purpose of the Tier 1 evaluation is to compile existing information used to make a factual determination regarding compliance with the Clean Water Act Section 404(b)(1), and to generate a list of "Contaminants of Concern." Disposal operations that are excluded from testing or have historic data sufficient for the factual determination may proceed without additional testing. If a factual determination of non-compliance can be made and it is determined that the dredged sediments will not be disposed of in open water, additional testing is not required, except as necessary for consideration of other disposal options. If there is no sufficient information for a factual determination, the information is deemed inconclusive, and a Tier 2 evaluation is performed.

The Tier 1 evaluation is not intended to provide a comprehensive investigation of all potential sources of sediment contamination, but rather is intended to indicate whether sediment testing is warranted based on existing data and potential sources of sediment contamination.

1.2 IHC Dredging and Disposal Project Description

Indiana Harbor and Canal (IHC) is an authorized Federal navigation project located in East Chicago, Indiana. Indiana Harbor is located in East Chicago, Lake County, Indiana. It is on the southwest shore of Lake Michigan, 4 ½ miles east of the Indiana-Illinois state line and 17 miles

[1] *Great Lakes Dredged Material Testing and Evaluation Manual*, joint USEPA-USACE publication, Final Draft Version, September 30, 1998, available website as follows: http://www.epa.gov/glnpo/sediment/gltem/manaual.htm.

from downtown Chicago. Indiana Harbor has an entrance channel and outer harbor protected by breakwaters, and an inner harbor. The inner harbor consists of the Indiana Harbor and Canal and its two (2) branches. The main channel extends from the lakeward E.J. & E. Railway Bridge to The Forks, a distance of 7,400 feet. Near The Forks, there is a small turning basin located on the southeast side of the canal about 600 feet lakeward of Canal Street. From The Forks, the Lake George Branch extends west for a distance of 6,800 feet and the Calumet River Branch extends south for about two (2) miles where it joins the Grand Calumet River. The Project Vicinity Map is shown as Figure 1.

Prior to 1972, dredged material from the IHC was disposed of in a designated open water area of Lake Michigan or in the permitted lakefills of the Inland Steel or the LTV Companies located on the east and west sides of the harbor entrances, respectively. In 1972, the USEPA determined that disposal in Lake Michigan was no longer acceptable due to the polluted character of the dredged material. Consequently, dredging to maintain adequate navigation depths has not been conducted at this harbor since 1972 due to the lack of an approved economically feasible and environmentally acceptable disposal facility for dredged materials from the IHC.

In 1975, USACE began to formulate an economically feasible and environmentally acceptable plan for disposal of dredged materials from the IHC. In cooperation with the East Chicago Waterway Management District (ECWMD), USACE issued the Final Comprehensive Management Plan (CMP) in January 1999. The CMP evaluated the feasibility of a number of dredging and disposal options. Based on the CMP evaluation, a preferred plan was selected, called the Cooperative Dredging Plan, which called for mechanical dredging and disposal in a confined disposal facility (CDF) to be constructed at the former Energy Cooperative, Inc. (ECI) Site, in East Chicago, Indiana. The ECI Site selected for the facility is an abandoned petroleum refinery with open Resource Conservation Recover Act (RCRA) status and has significant soil and groundwater contamination. To address contaminant issues in the sediment and at the site, the project will include several distinct features. These features include the following: a groundwater cutoff wall to prevent groundwater migration from the site, which includes installation of a Waterloo Barrier on the south side of the site; a groundwater collection system to maintain an inward groundwater gradient at the site; perimeter clay cap and clay dikes that will tie into the cutoff wall; and a wastewater treatment plant (WWTP) that will treat groundwater from the site as well as the pore water and precipitation drained from the dewatering sediment. The dredging project life is assumed to be 30 years, with a CDF design capacity of 4.8 million cubic yards. A small volume of sediment is

classified as sediment subject to disposal in accordance with the Toxic Substances Control Act (TSCA).

The IHC CDF site consists of a 168-acre parcel located in East Chicago, Indiana, northwest of the intersection of Indianapolis Boulevard and the Lake George Canal. The CDF site is bounded on the south by the Lake George Canal, to the east by Indianapolis Boulevard, on the north by the Cline Avenue overpass, and on the west by a railroad spur and refinery tank farm. A Site Location Map is included as Figure 2. USACE will be utilizing the CDF site as a disposal facility for dredged material from the IHC, located approximately two (2) miles to the north. The CDF site was formerly the location of a petroleum refinery between the years of 1918 and 1981. The property contained facilities for storage, marine loading, rail loading, insecticide production, truck docks and API separator. Former owners of the property included Sinclair Oil, ARCO, and Energy Cooperative, Incorporated (ECI). In 1981, ECI filed for bankruptcy and in the late 1980s all buildings and aboveground structures were razed. Several inches of topsoil were graded over the surface to cover the land. In 1989, the City of East Chicago, took ownership of the property in lieu of payment of back taxes owned by ECI. In the 1990s, several subsurface investigations were performed which included the installation of several groundwater monitoring wells. While monitoring groundwater levels, a floating hydrocarbon layer was measured at several locations within the southern half of the property. In 1992, an oil recovery system was installed between the Lake George Canal and the south boundary of the property. The oil recovery system consists of three (3) recovery wells, a free product tank, oil/water separator and an infiltration trench. The system has been maintained on a quarterly basis since it was installed. When completed, the CDF will be used to contain contaminated sediments that will be mechanically dredged from the IHC. Perimeter vertical hydraulic barriers (soil-bentonite slurry wall or grouted sheet pile cutoff walls) that extend approximately 33 to 40 feet from the ground surface into the underlying clay till are part of the construction. The north, east, and west sides of the CDF will be contained by a soil-bentonite slurry wall. The south vertical hydraulic barrier will be a grouted sheet pile cutoff wall, or Waterloo Barrier, located in the Lake George Canal, approximately two (2) feet south of the existing sheet pile retaining wall. Photos of the existing sheet pile wall are included as Appendix A. The intervening space between the Waterloo Barrier and the existing sheet pile wall will be filled with sand.

1.3 Obstruction Removal Project Description

USACE-Chicago District, is preparing to mechanically dredge a non-federal portion of the Lake George Branch of the IHC in East Chicago, Indiana. The purpose of this dredging project will be to remove sediment

above existing pipes that run along the canal so that a 10 foot section of the pipe can be removed in order to clear a path for the installation of the Waterloo Barrier. The planned dredging will occur just South of the ECI Site, along the existing sheetpile wall. The quantity to be dredged is estimated at 950 cubic yards.

Before dredging, sheetpile will be driven down to the pipes to be removed. Four (4) pieces of sheetpile will be driven and interlocked to form a box structure. A standard mechanical clamshell bucket will be modified will be used to dredge the sediment from within the box down to the pipes. This modified bucket will reduce resuspension. The 10 foot section of the pipe will then be removed. The portion of the pipes still in place in the canal will be grouted and capped. The sediment removed by dredging will be placed in roll-off boxes. The sediment will be transported to and disposed of at a TSDF facility. A silt curtain will be in place during the Obstruction Removal project.

1.4 Sediment Sources and Sources of Contamination

There are three (3) major sources, which account for the sediment entering the IHC/GCR. They are municipal and industrial discharges, combined sewer overflows, and urban runoff, which contribute an estimated 152,000 CY (or 182 million pounds) of sediment to the IHC/GCR each year. Industrial and municipal outfalls, including combined sewer systems, are a primary source of pollution of the IHC/GCR sediments. There are 39 permitted outfalls on the IHC/GCR which serve municipal sewage treatment plants, integrated steel manufacturing facilities, and chemical producers, among others. In addition, to these controlled point sources, the sanitary districts of Gary, Hammond, and East Chicago maintain combined sewer systems which overflow to the IHC/GCR during even light storm events. More information on sediment sources and sources of contamination can be found in the IHC Comprehensive Management Plan (CMP)[2] and the Design Documentation Report (DDR).[3]

1.5 Contaminant Transport and Pathways

1.5.1 IHC Land Use

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[2] *Indiana Harbor Canal Comprehensive Management Plan (CMP)*, U.S. Army Corps of Engineers in cooperation with East Chicago Waterway Management District, Volume 1 and 2, dated January 1999 and September 1998, respectively.

[3] *Indiana Harbor Canal Design Documentation Report (DDR)*, U.S. Army Corps of Engineers in cooperation with East Chicago Waterway Management District, March 2000.

The LTV Steel Company and the Inland Steel Company are located on the northwest and southeast sides of the IHC, respectively, between Lake Michigan and Cline Avenue, a distance of about three (3) miles. These two (2) companies are the primary harbor users. The U.S. Gypsum Company and several major petroleum companies, such as Amoco Oil Company, Citgo, Mobil and Phillips, also have docks along the Canal, Calumet River and Lake George Branches. The Safety-Kleen Company also operates a dock along the north side of the Lake George Branch immediately downstream of the Indianapolis Boulevard Bridge for shipment of refined lubricating oils by barge. A Project Land Use Map is included as Figure 3. More information regarding IHC land use can be found in the CMP and DDR, referenced above.

1.5.2 Sediment Types

Most of the sediments in the harbor and canal are predominantly silt and clay, with sandier deposits near the center of the canal, the eastward end of the approach channel and in the vicinity of the harbor. More information on sediment characteristics can be found in the CMP and DDR, referenced above.

1.5.3 Watershed Characteristics

The IHC/GCR drains approximately 67 square miles of highly urbanized and industrialized areas in northwestern Indiana and discharges to Lake Michigan at Indiana Harbor. The cities of Gary, Hammond, Whiting, and East Chicago are within this watershed. Major industries in the watershed include three (3) large steel mills (USX, Inland, and LTV), several petrochemical storage and refinery installations (including Standard Oil, Atlantic Richfield, Phillips Pipeline, and Texaco). Other industries include U.S. Gypsum and Dow Chemical.

The topography of the area is flat, except for remnant beach ridges, man-made landfills and borrow pits. The Grand Calumet River (GCR) Basin lies within the Calumet Lake Plain. Industrial development of this glacial lakebed has resulted in the leveling of high dunes and ridges and filling of the low-lands and ponds with sand and steel mill slag.

For the most part, the IHC/GCR is a man-made waterway. The GCR was deepened and widened during the late 1800's to facilitate drainage of wetland areas for industrial and residential development. The IHC was constructed by local industries for navigation and to allow for the drainage of the GCR to Lake Michigan.

As a watercourse, the GCR originates with the discharge from the USX steel mill in eastern Gary. The east arm of the river flows approximately eight (8) miles in a westerly direction, where it joins the west arm and turns north into the IHC. On the west arm of the of the GCR, there is a natural divide between the portion draining east to the IHC and the portion draining west to the Calumet Sag Channel (which flows to the Illinois River). About two (2) miles of the west arm drains to the IHC.

The GCR has a very limited natural flow. More then 90% of the dry weather flow in the IHC/GCR originates as treated municipal and industrial wastewater, industrial cooling and process water. River currents are generally sluggish, often stagnant in the west arm of the GCR. Water depths in the GCR are generally less than eight (8) feet. Currents in the IHC are influenced by the fluctuations of lake levels at the harbor mouth.

1.6 Sources of Information Investigated

1.6.1 Summary of Historic Sediment Quality Data

The bulk chemistry from discrete sampling events consistently shows high levels of metals, nutrients, oil & grease, and volatile solids. The sediments are classified as "heavily polluted" according to the 1977 USEPA guidelines[4]. More information on historic sediment quality data can be found in the CMP and DDR, referenced above.

1.6.2 Sediment Contaminant List

As mentioned above, the sediments for the entire IHC have been classified as heavily polluted. The following table corresponds to the IHC sediments in general and does not specifically relate to the sediments that will be disposed of in the Obstruction Removal project.

[4] U.S. Environmental Protection Agency, 1977, *Guidelines for the Pollutional Classification of Great Lakes Harbor Sediments*, U.S. EPA, Region V, Chicago, Illinois.

Volume-Weighted Mean Concentrations and Pollutional Classification of Indiana Harbor and Canal Sediments

Parameter	VOLUME-WEIGHTED MEAN CONCENTRATION (%)	POLLUTIONAL CLASSIFICATION
Volatile Solids	14.1	HEAVILY
COD	207,575.0	Heavily
Oil & Grease	63,627.0	Heavily
TKN	2,929.0	Heavily
Ammonia	845.0	Heavily
Cyanide	1.4	Heavily
Manganese	1,914.0	Heavily
Phosphorus	2,555.0	Heavily
Arsenic	53.0	Heavily
Barium	45.0	Moderately
Cadmium	11.0	Heavily
Chromium	370.0	Heavily
Copper	156.0	Heavily
Iron	144,623.0	Heavily
Nickel	99.0	Heavily
Lead	837.0	Heavily
Zinc	3,669.0	Heavily
Mercury	0.7	Non-polluted
PCBs	8.9	Heavily

All concentrations are mg/kg, unless otherwise noted.

1.7 Conclusion

This evaluation of the environmental history of the IHC established a reason to believe that the sediments in the harbor and canal were contaminated with industrial and other pollutants. A review of sediment test data, both current and historic, revealed that there were significant concentrations of contaminants in the sediment. A comparison of the bulk chemical analyses performed with the USEPA pollutional guidelines established that the harbor and canal is heavily polluted. Contaminated sediments are not suitable for open-water disposal, and must be confined.

2. TIER 2

2.1 Introduction

The September 17, 2003 sampling event was completed to determine viable disposal alternatives for material that is being considered for

dredging. The Scope of Work (SOW) for this sampling and analysis is provided as Appendix B. The sampling plan was submitted to Steve West, of IDEM, for concurrence and this concurrence was given via e-mail, dated 01 May 2003. Given the historical record of sediment quality, no sediment from this system was assumed to have a potential for being acceptable for open water disposal.

2.2 Tier 2 Objectives

To make a factual determination of compliance with the Clean Water Act Section 404(b)(1), a Tier 2 evaluation is required for open water disposal. However, because historic sediment data shows that sediment in the Lake George Branch (LGB) is not suitable for open water disposal, only sediment bulk chemistry was analyzed to determine disposal alternatives.[5] The disposal alternatives considered exclude open water disposal and unconfined disposal.

2.3 July 18, 2002 Investigation
Physical Characterization for Construction of Waterloo Barrier

USACE, through a Contractor, obtained sediment borings just south of the existing sheetpile wall on July 18, 2002. A figure showing sampling locations is included as Figure 4 (SED-X-02). The primary goal of this investigation was to determine the physical characteristics of the clay soil below the bottom of the canal. This information will be used in the design of the proposed Waterloo Barrier. The secondary goal of this investigation was to chemically analyze the PCB content of the loose materials encountered between the bottom of the can and the top of the clay stratum. This information was used to characterize the materials for the Obstruction Removal project and Waterloo Barrier construction.

Results from the primary objective are as follows: The canal bottom consists of a 2 to 5 feet layer of black organic silt overlying gray silt and silty sand deposits. The organic silt deposits were loose, while the silty sand was medium dense to dense. A clay layer in the canal beginning at 548 feet mean sea level (MSL) was identified. The clay till consisted primarily of gray silty clay, with trace fractions of coarse to fine sand, low to high plasticity, and was moist to wet.

In this sampling event, five (5) composite samples were also collected from the upper two (2) feet of sediments encountered and were analyzed for polychlorinated biphenyls (PCBs) (SED-1-02 through SED-5-02[6]). The samples were obtained through the use of an Eijkelkamp piston

[5] The sediment dredged from the LGB will not be discharged back into the canal. The dredged material will be disposed of off-site at a TSDF facility.
[6] See Table 1 for Soil Sample Chemical Analytical Testing Results.

sampler. The work platform for these borings consisted of a motorized pontoon boat that was anchored in the canal above each of the boring locations. At each of these boring locations, a composite sample was made of the upper 2 feet of the loose materials obtained from the bottom of the canal. The composite sampling procedure consisted of placing the recovered materials in a stainless steel mixing tray, and then thoroughly mixing the materials with a trowel. Each sample was preserved in a 4-ounce glass jar sealed with a Teflon-lined twist-on cap.

The Chemical Analytical Program was developed by USACE. The testing program was limited to analyzing the five (5) composite samples obtained from Borings SED-1-02 through SED-5-02 for PCB compounds. Analysis was performed in accordance with USEPA publication: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*.[7] The analytical data was compared to the Indiana Department of Environmental Management (IDEM) Default Closure Limit[8] for PCB compounds. The Default Closure Limit is intended to be a gauge as to what level of contamination IDEM would deem acceptable for soils left in-place. In summary, the chemical analytical results identified that the samples were contaminated with PCB compounds.[9] At two (2) locations (SED-2-02 and SED-3-02), the detected concentrations of PCB compounds were greater than the IDEM Default Closure Limit, indicating that these soils may have to meet special disposal requirements.

Based on the sample results, it was not anticipated that future values for PCBs in this area would exceed 50 parts per million (ppm). Also, from historical sampling in other areas of the canal, it was not anticipated that the sediment would exceed TCLP concentrations. A table containing soil sample chemical analytical testing results is included as Table 1.

Sediment logs and logbook summaries are provided as Appendix C. The sediment physical and chemistry raw data from the laboratory is available in the USACE-Chicago District, Geotechnical Engineering project files, if needed.

2.4 September 17, 2003 Investigation Chemical Characterization for Disposal Requirements

During 15-17 of September, USACE conducted a sediment sampling and analysis event along the existing sheet pile wall. The primary objective of

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[7] SW846, 3rd Edition, Method 3540C/8082.

[8] Indiana Department of Environmental Management (IDEM) Default Closure Limit is from *Risk-Integrated System of Closure (RISC) Technical Guide and Users Guide*, Appendix 1, Table A (Industrial Sites).

[9] First Environmental Laboratories, Inc. stated in a letter dated July 31, 2003, that some of the reporting limits have been elevated due to matrix interferences.

the sediment sampling was to obtain chemical data for the sediments to be dredged from the Lake George Branch of the canal.[10] This data will be used by USACE to characterize the sediment removed during obstruction removal in conjunction with determination of disposal requirements. Five (5) sediment borings (IHC03-C1, IHC03-C2, IHC03-C3, IHC03-C4, and IHC03-C5) were advanced at the site from September 15 to 17, 2003 using a hollow-stem auger drill rig (Diedrich D-50 ATV). The Diedrich D-50 ATV rig was set up on land with the augers extending 2 feet beyond the edge of the retaining wall. Drilling was conducted using 4 ¼ - inch hollow stem augers. The borings were advanced from the sediment surface to depths ranging from 8 to 24 feet below sediment surface (bss). The boring locations are shown on Figure 4. The borings were performed along an approximate 1,000 foot section of the north side of the canal and were spaced at 200 to 400 foot internals. The depths of the borings increased toward the west, as the elevation of the sediment surface increased.

The bottom layer in all of the sediment borings was a silty clay that appears to be representative of native soils at the site. The top of the silty clay layer ranged from approximately 553 to 563 feet MSL in the test borings. Overlying the silty clay in borings IHC03-C1, IHC03-C2, IHC03-C3 and IHC03-C5 was a sand layer that grades into silty sand in some areas. The sand layer was thickest in the western most boring (IHC03-C1), and gradually decreased in thickness until it was not encountered in boring IHC03-C4. A five (5) foot sand layer was then encountered in the next boring to the east (ICH03-C5). A two (2) foot silty gravel layer was encountered at the sediment surface in boring IHC03-C1 and a one (1) foot sandy gravel layer was encountered at the top of IHC03-C3.

The borings were continuously sampled in 2 foot internals from the surface to the terminal depth using a split-spoon sampler. The sub-samples were homogenized in the field in a large, decontaminated stainless steel bowl and the sub-samples were placed in the appropriate pre-cleaned sample containers. Samples submitted for TCLP VOC analysis were prepared by filling unpreserved 2-ounce glass jars with no headspace. These samples were homogenized by the laboratory under controlled conditions and were not homogenized in the field. A VOC sample was not submitted at a depth between 4 to 6 feet for IHC03-C2 and at a depth of 0-2 feet for IHC03-C1 due to lack of sediment recovery. The region of the sub-sample that produced the highest PID reading was chosen for VOC analysis. Samples for TCLP SVOC analysis, TCLP RCRA 8 metals analysis, TCLP Pesticides/Herbicide analysis, close cup flashpoint analysis, reactive sulfides analysis, and total PCB analysis were

[10] See Appendix B for Scope of Work for Sediment Sampling and Analysis.

submitted after compositing the sub-samples in a decontaminated stainless steel bowl and filling a one (1) liter glass jar containing no preservatives.

2.5 Sediment Bulk Chemistry Results

Five (5) sediment samples and one (1) duplicate were submitted for laboratory analysis for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) (EPA Method 846[11]), TCLP semi-volatile organic compounds (SVOCs) (EPA Method 846), TCLP Resource Conservation and Recovery Act (RCRA) 8 metals (EPA Method 846), TCLP pesticides/herbicides (EPA Method 846), closecup flashpoint (EPA Method 1010), reactive sulfides (EPA Method 7.3.4), and total PCBs (EPA Method 8082). Analytical data is summarized in Tables 2-5.

Sediment analytical results were compared to USEPA TCLP regulatory levels. None of the compounds detected exceeded regulatory levels. Ignitability and sulfide reactivity were compared to USEPA regulatory levels and no exceedances were noted. Total PCB levels were compared to the Toxic Substances Control Act (TSCA) regulatory level and there were no exceedances. Table 6 lists all compounds that were detected in the six (6) sediment samples. None of these detections exceed EPA TCLP regulatory levels.

Sediment logs and logbook summaries are provided as Appendix C. The sediment chemistry raw data from the laboratory is available in the USACE-Chicago District, Environmental Engineering project files, if needed.

A Data Quality Assessment (DQA) was performed by USACE and a Memorandum of Record detailing this assessment can be found in Appendix D. In performance of this DQA, all project data was reviewed including the quality control narrative. The analyses requested were performed using acceptable methods. According to the quality control narrative, most of the samples analyzed appear to be within quality control limits. The DQA concludes that the data appears to be acceptable and suitable for its intended purpose.

2.6 PCB Investigation Comparison

The PCB concentrations from the July 18, 2002 sampling event ranged from 1.055 to 10.74 mg/kg. When compared to the IDEM Default Closure Limit, two (2) samples exceeded the limit for PCBs. The PCB concentrations from the September 17, 2003 sampling event ranged from

[11] United States Environmental Protection Agency, *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*, Publication SW-846, 3rd Edition, April 1998.

0.020 to 0.640 mg/kg. Total PCB levels compared to the TSCA regulatory level, revealed no exceedences.

There are two (2) potential reasons why the concentrations from these two (2) sampling events differed. One factor that could have made a difference in the concentrations seen in the analytical data could be, that in the July 18, 2002 sediment analytical results, some of the reporting limits were elevated due to matrix interferences. Also, the July 18, 2002 sampling event's primary purpose was physical characterization, rather then chemical characterization required for disposal requirements. On the other hand, the September 17, 2003 sampling was specifically directed towards disposal and chemical quality assurance inherent for this action.

2.7 Tier 2 Conclusions

In summary, USACE has completed a contaminant determination for sediments to be dredged from the Lake George Branch of the IHC in East Chicago, Indiana as required by Section 404(b)(1) of the Clean Water Act (CWA). The determination used a tiered approach.

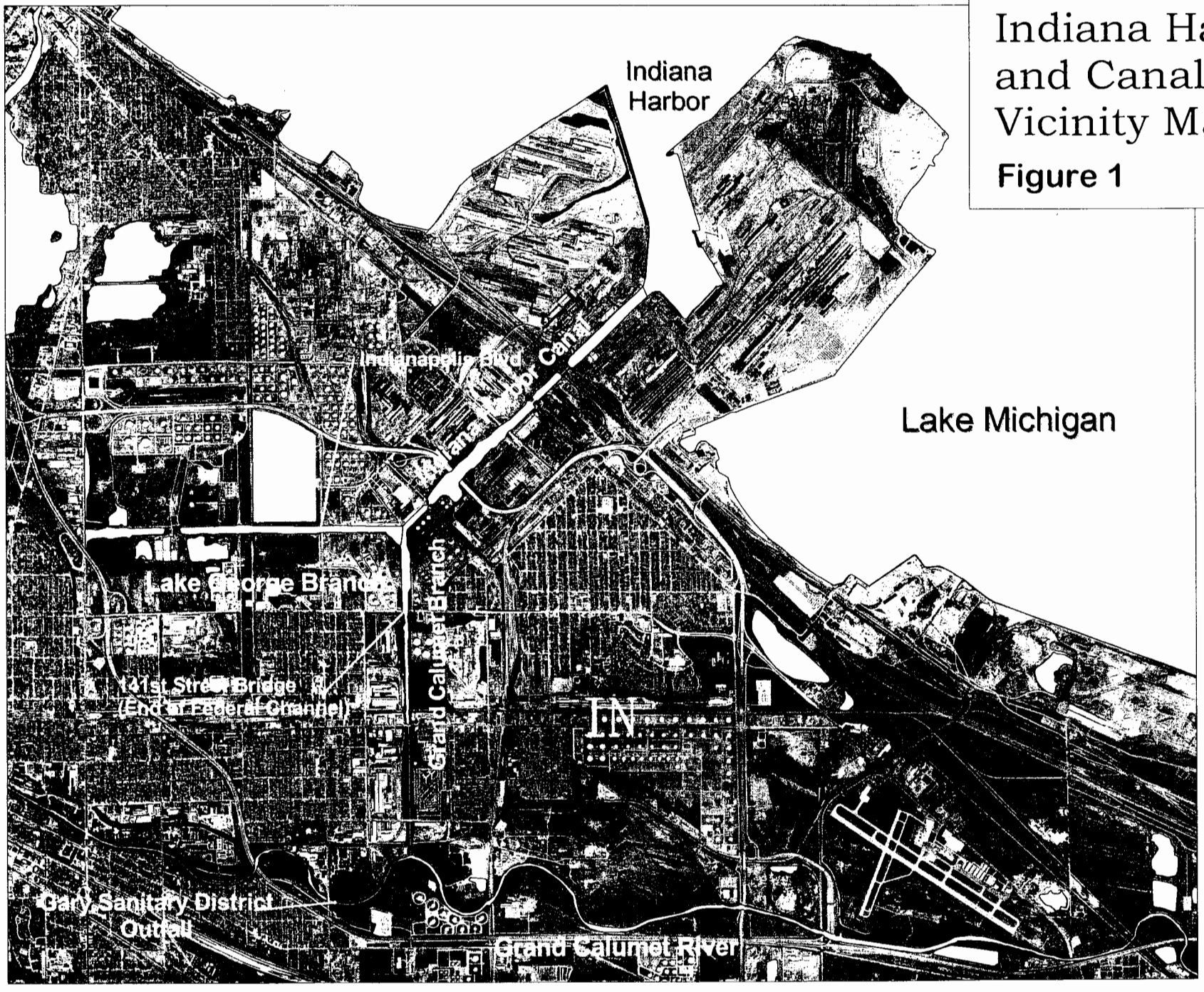
The historical sediment data shows that open water disposal of the sediment could cause significant water quality impacts, and would greatly exceed water quality standards for Lake Michigan. The sediment and entrained water will be transported via roll off boxes to and disposed of at a treatment, storage and disposal facility (TSDF). Laboratory analytical data, from the September 17, 2003 Investigation, was given to a TSDF to review for disposal options. After reviewing the data, the TSDF assented that the sediment and entrained water could be disposed of at their facility and non-hazardous disposal rates would apply.

Figures

404(b)(1) Contaminant Determination Report
Indiana Harbor and Canal
Obstruction Removal, for Waterloo Barrier Installation
East Chicago, Indiana

Indiana Harbor and Canal Vicinity Map

Figure 1



N
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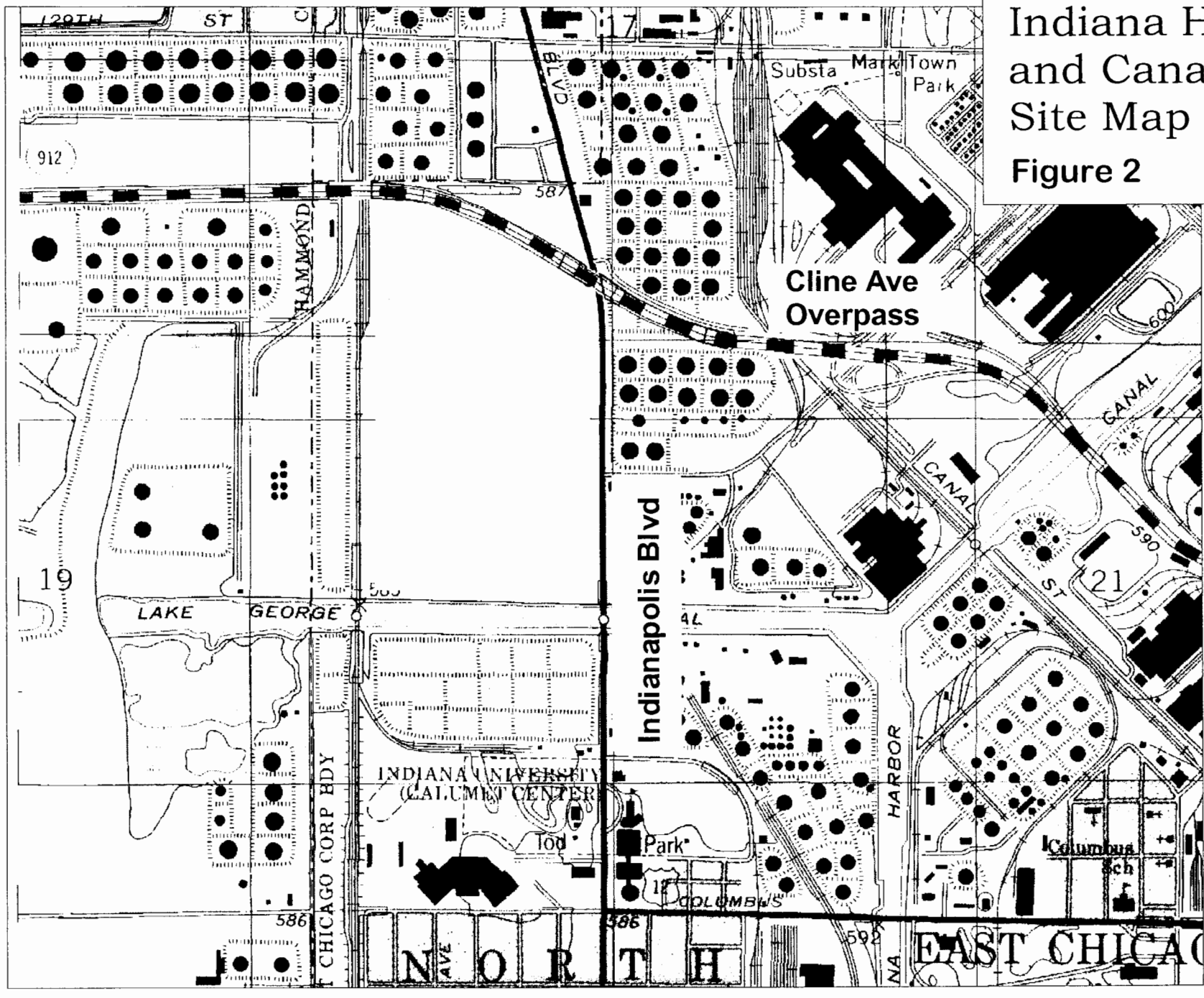
3 0 3 6 Miles

Indiana Harbor and Canal Site Map

Figure 2

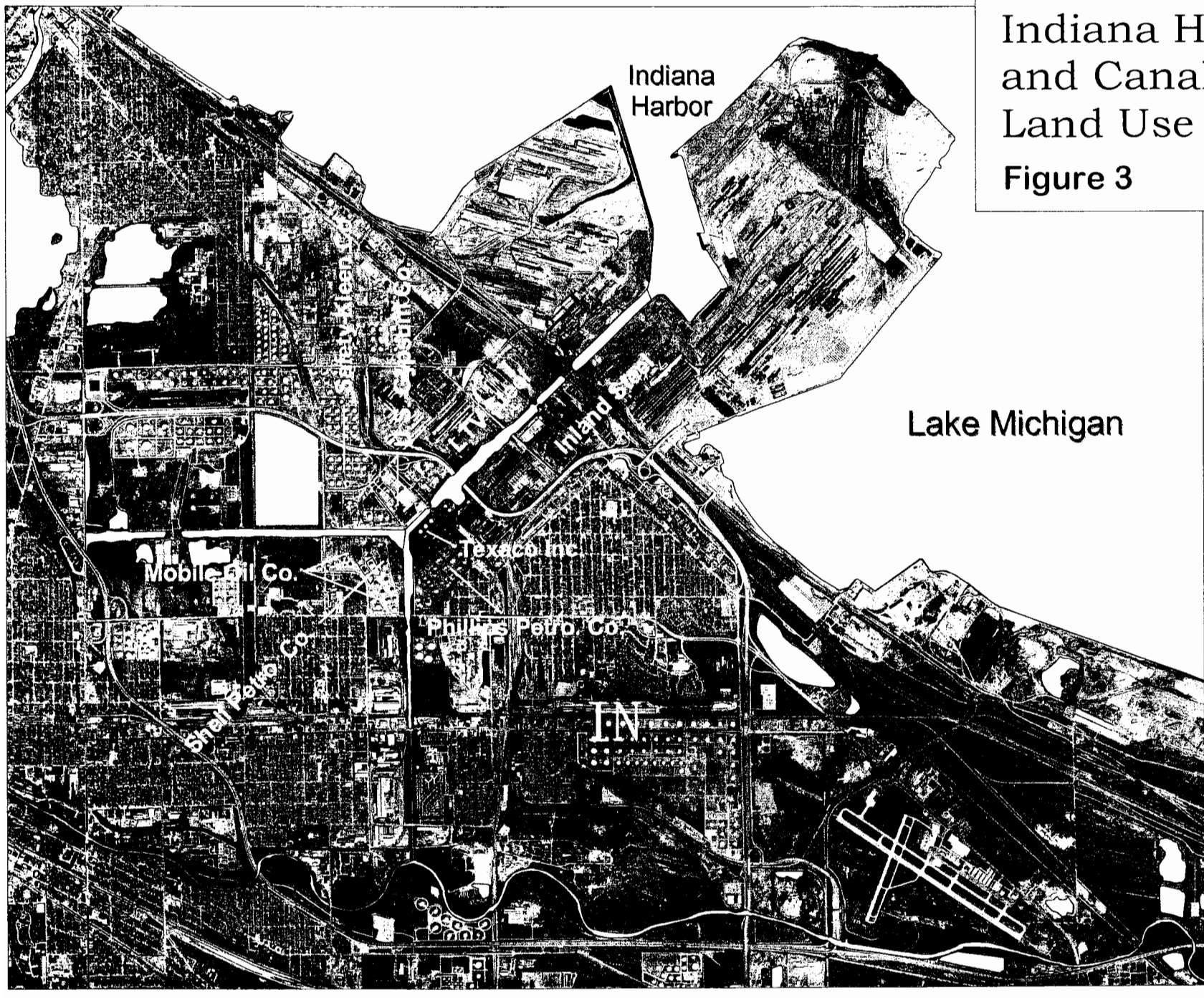


0.2 0 0.2 0.4 Miles

N W E S

Indiana Harbor and Canal Land Use Map

Figure 3



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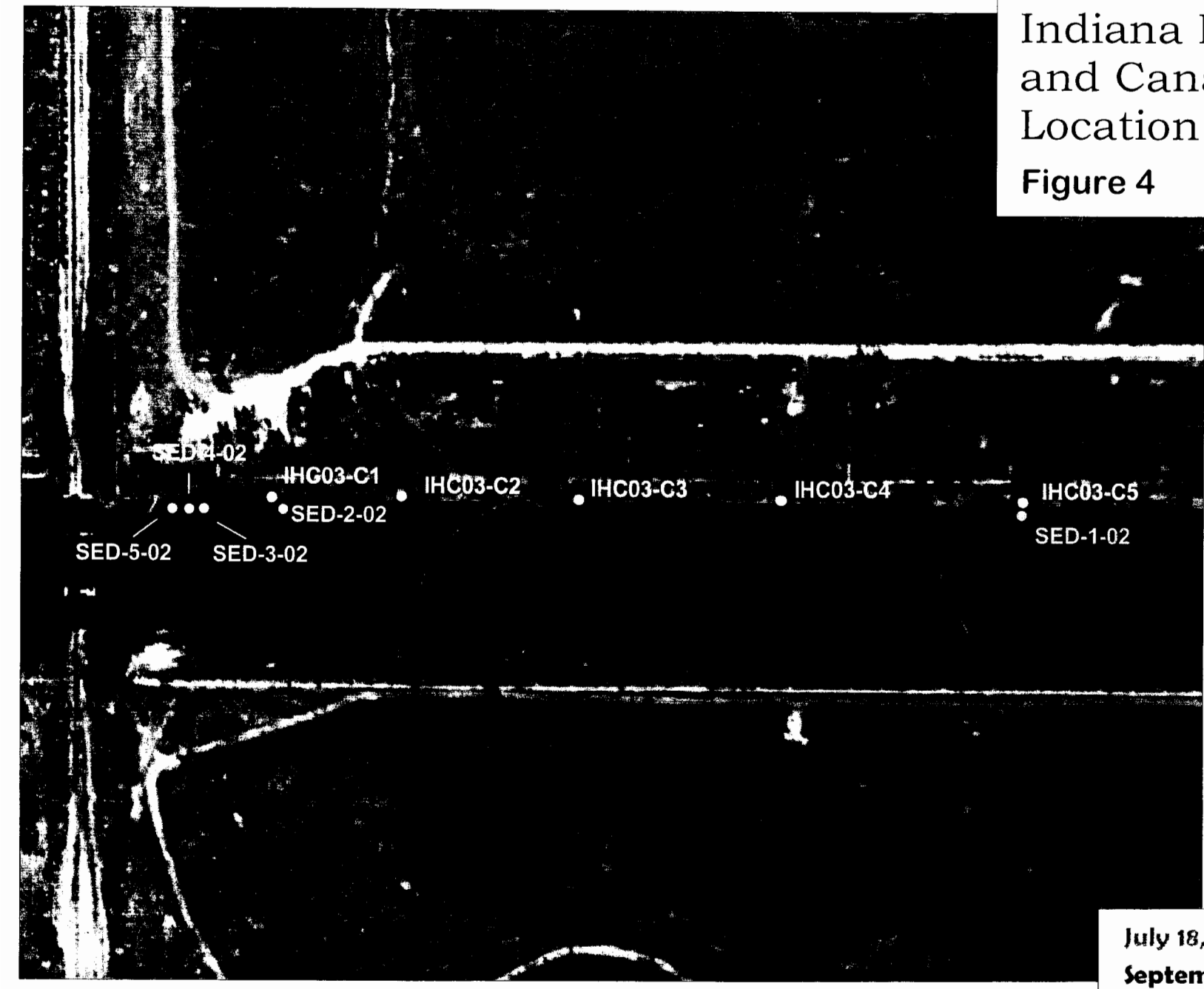
Indiana Harbor and Canal Sample Location Map

Figure 4



N
W E
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July 18, 2002
September 17, 2003

0.1 0 0.1 0.2 Miles

Tables

404(b)(1) Contaminant Determination Report
Indiana Harbor and Canal
Obstruction Removal, for Waterloo Barrier Installation
East Chicago, Indiana

Table 1

Summary of Soil Sample Chemical Analytical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	**SED-1-02**	**SED-2-02**	**SED-3-02**	**SED-4-02**	**SED-5-02**	**IDEM Default Closure Limit[2]**
Sample No.	PS-1	PS-1	PS-1	PS-1	PS-1	
Soil Class[3]	OL	OL	OL,SM	OL, SP-SM	OL, SP	
PCB Compounds						
Aroclor 1016	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1221	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1232	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1242	2.80	5.77	9.18	0.844	2.05	---
Aroclor 1248	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1254	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1260	1.21	1.10	1.56	0.211	0.546	---
Total PCBs	**4.01**	**6.87**	**10.74**	**1.055**	**2.596**	**5.3**

Notes:

1. Soil samples were obtained by Patrick Engineering Inc. on July 18, 2002, using Eijkelkamp hand-auger and piston sampler. Samples were composite samples made from the upper 2 feet of soils encountered at the bottom of the Lake George Canal. Chemical analyses were performed by First Environmental Laboratories, Naperville, Illinois, in accordance with SW846 Method No. 3540C/8082. Results are expressed as milligrams per kilogram (mg/kg).

2. Indiana Department of Environmental Management (IDEM) Default Closure Limit is from *Risk-Integrated System of Closure (RISC) Technical Guide and Users Guide*, Appendix 1, Table A (Industrial Sites).

3. Soil Class is in accordance with *Unified Soil Classification System*, ASTM D2487, e.g., OL is organic clay and organic silt, SM is silty sand, and SP is poorly graded sand. Refer to Boring Logs for detailed descriptions of soils encountered at each boring location.

4. Shaded value identifies result that exceeds the *RISC* Default Closure Limit.

Table 2

Indiana Harbor and Canal Site
Exceedance Table of Analytical Results

Cas Rn	Chemical Name	Analytic Method	Sample Code Lab ID Sample Date Unit \\	TCLP-Regs	IHC03-C1 WT2247-1 9/17/2003			IHC03-C1-D WT2247-2 9/17/2003			IHC03-C2 WT2229-2 9/16/2003			IHC03-C3 WT2229-1 9/16/2003		
(Group Code)	**(Group Description)**															
TCLP-Voa	**TCLP-Volatile Organic Compounds**															
75-35-4	1,1-Dichloroethylene	SW8260B	ug/L	700	100	U		100	U		100	U		100	U	
107-06-2	1,2-Dichloroethane	SW8260B	ug/L	500	100	U		100	U		100	U		100	U	
78-93-3	2-Butanone	SW8260B	ug/L	200000	300	U		300	U		300	U		300	U	
71-43-2	Benzene	SW8260B	ug/L	500	11	J	#	12	J	#	100	U		20	J	#
56-23-5	Carbon Tetrachloride	SW8260B	ug/L	500	100	U		100	U		100	U		100	U	
108-90-7	Chlorobenzene	SW8260B	ug/L	100000	100	U		100	U		100	U		100	U	
67-66-3	Chloroform	SW8260B	ug/L	6000	100	U		100	U		100	U		100	U	
127-18-4	Tetrachloroethene	SW8260B	ug/L	700	100	U		100	U		100	U		100	U	
79-01-6	Trichloroethylene	SW8260B	ug/L	500	100	U		100	U		100	U		100	U	
75-01-4	Vinyl Chloride	SW8260B	ug/L	200	40	U		40	U		40	U		40	U	
TCLP-Svocs	**TCLP-Semi-Volatile Organic Compounds**															
106-46-7	1,4-Dichlorobenzene	SW8270	ug/l	7500	50	U		50	U		50	U		50	U	
95-95-4	2,4,5-Trichlorophenol	SW8270	ug/l	400000	120	U		120	U		120	U		120	U	
88-06-2	2,4,6-Trichlorophenol	SW8270	ug/l	2000	50	U		50	U		50	U		50	U	
121-14-2	2,4-Dinitrotoluene	SW8270	ug/l	130	50	U		50	U		50	U		50	U	
o+p-Cresol	Total Cresols	SW8270	ug/l	200000	100	U		100	U		100	U		100	U	
118-74-1	Hexachlorobenzene	SW8270	ug/l	130	50	U		50	U		50	U		50	U	
87-68-3	Hexachloro-1,3-Butadiene	SW8270	ug/l	500	50	U		50	U		50	U		50	U	
67-72-1	Hexachloroethane	SW8270	ug/l	3000	50	U		50	U		50	U		50	U	
98-95-3	Nitrobenzene	SW8270	ug/l	2000	50	U		50	U		50	U		50	U	
87-86-5	Pentachlorophenol	SW8270	ug/l	100000	120	U		120	U		120	U		120	U	
110-86-1	Pyridine	SW8270	ug/l	5000	250	U		250	U		250	U		250	U	
TCLP-Pests	**TCLP Pesticides**															
57-74-9	Chlordane	SW8081	ug/L	30	2.5	U		2.5	U		2.5	U		2.5	U	
72-20-8	Endrin	SW8081	ug/L	20	0.5	U		0.5	U		0.5	U		0.5	U	
58-89-9	Gamma-Bhc (Lindane)	SW8081	ug/L	400	0.25	U		0.25	U		0.25	U		0.25	U	
76-44-8	Heptachlor	SW8081	ug/L	8	0.25	U		0.25	U		0.25	U		0.25	U	
1024-57-3	Heptachlor Epoxide	SW8081	ug/L	8	0.25	U		0.25	U		0.25	U		0.25	U	
72-43-5	Methoxychlor	SW8081	ug/L	10000	2.5	U		2.5	U		2.5	U		2.5	U	
8001-35-2	Toxaphene	SW8081	ug/L	500	5	U		5	U		5	U		5	U	

COMPARISON FLAGS:

-- Detected sample value does not exceed the limit.

~ -- No comparison.

Table 3

Indiana Harbor and Canal Site
Exceedance Table of Analytical Results

Cas Rn	Chemical Name	Analytic Method	Sample Code Lab ID Sample Date Unit \\	TCLP-Regs	IHC03-C1 WT2247-1 9/17/2003			IHC03-C1-D WT2247-2 9/17/2003			IHC03-C2 WT2229-2 9/16/2003			IHC03-C3 WT2229-1 9/16/2003		
PCBs	**Aroclors**															
12674-11-2	Aroclor-1016	SW8082	ug/Kg	(b)	20	U		20	U		21	U		22	U	
11104-28-2	Aroclor-1221	SW8082	ug/Kg	(b)	20	U		20	U		21	U		22	U	
11141-16-5	Aroclor-1232	SW8082	ug/Kg	(b)	20	U		20	U		21	U		22	U	
53469-21-9	Aroclor-1242	SW8082	ug/Kg	(b)	20	U		20	U		21	U		22	U	
12672-29-6	Aroclor-1248	SW8082	ug/Kg	(b)	20	U		80		#	640		#	140		#
11097-69-1	Aroclor-1254	SW8082	ug/Kg	(b)	20	U		20	U		21	U		22	U	
11096-82-5	Aroclor-1260	SW8082	ug/Kg	(b)	20	U		20	U		140		#	26		#
TCLP-Metals	**TCLP-Inorganic Compounds**															
7440-38-2	Arsenic	SW6010B	ug/L	5000	10.65	U		10.65	U		10.65	U		10.65	U	
7440-39-3	Barium	SW6010B	ug/L	100000	469		#	314		#	920		#	715		#
7440-43-9	Cadmium	SW6010B	ug/L	1000	2	B	#	1.25	U		1.6	B	#	1.25	U	
7440-47-3	Chromium	SW6010B	ug/L	5000	16	B	#	4.4	U		4.4	U		4.4	U	
7439-92-1	Lead	SW6010B	ug/L	5000	157		#	92.8		#	7.8	U		208		#
7782-49-2	Selenium	SW6010B	ug/L	1000	16.2	B	#	11.6	U		11.6	U		11.6	U	
7440-22-4	Silver	SW6010B	ug/L	5000	5.8	U		5.8	U		5.8	U		5.8	U	
7439-97-6	Mercury	SW7470A	ug/L	200	0.11	B	#	0.04	U		0.05	B	#	0.04	U	
TCLP-Herbicides	**TCLP-Herbicides**															
94-75-7	2,4-D (Dichlorophenoxyacetic Acid)	SW8151	ug/L	10000	5	U		5	U		5	U		5.9	U	
93-72-1	Silvex (2,4,5-Tp)	SW8151	ug/L	1000	5	U		5	U		5	U		5.9	U	
Chemistry	**Total Solids, Ignitability, Sulfides**															
Ignit	Ignitibility	Ignite	Deg C	60 (a)	70	>		70	>		70	>		70	>	
Su-reac	Sulfide-Reactivity	SW846	mg/Kg	500 (a)	27	U		27	U		27	U		27	U	
TS	Total Solids	TS	%	N/A	84		~	84		~	81		~	79		~

COMPARISON FLAGS:

-- Detected sample value does not exceed the limit.
~ -- No comparison.
(a) -- According to EPA regulatory levels
(b) -- Total PCB Toxic Substances Control Act (TSCA) regulatory level is 50,000µg/Kg

Table 4

Indiana Harbor and Canal Site
Exceedance Table of Analytical Results

Cas Rn	Chemical Name	Analytic Method	Sample Code Lab ID Sample Date Unit \\	TCLP-Regs	IHC03-C4 WT2215-2 9/15/2003		IHC03-C5 WT2215-1 9/15/2003	
(Group Code)	**(Group Description)**							
1-TCLP-Voa	**TCLP-Volatile Organic Compounds**							
75-35-4	1,1-Dichloroethylene	SW8260B	ug/L	700	100	U	100	U
107-06-2	1,2-Dichloroethane	SW8260B	ug/L	500	100	U	100	U
78-93-3	2-Butanone	SW8260B	ug/L	200000	300	U	300	U
71-43-2	Benzene	SW8260B	ug/L	500	100	U	100	U
56-23-5	Carbon Tetrachloride	SW8260B	ug/L	500	100	U	100	U
108-90-7	Chlorobenzene	SW8260B	ug/L	100000	100	U	100	U
67-66-3	Chloroform	SW8260B	ug/L	6000	100	U	100	U
127-18-4	Tetrachloroethene	SW8260B	ug/L	700	100	U	100	U
79-01-6	Trichloroethylene	SW8260B	ug/L	500	100	U	100	U
75-01-4	Vinyl Chloride	SW8260B	ug/L	200	40	U	40	U
2-TCLP-Svocs	**TCLP-Semi-Volatile Organic Compounds**							
106-46-7	1,4-Dichlorobenzene	SW8270	ug/l	7500	50	U	50	U
95-95-4	2,4,5-Trichlorophenol	SW8270	ug/l	400000	120	U	120	U
88-06-2	2,4,6-Trichlorophenol	SW8270	ug/l	2000	50	U	50	U
121-14-2	2,4-Dinitrotoluene	SW8270	ug/l	130	50	U	50	U
o+p-Cresol	Total Cresols	SW8270	ug/l	200000	100	U	100	U
118-74-1	Hexachlorobenzene	SW8270	ug/l	130	50	U	50	U
87-68-3	Hexachloro-1,3-Butadiene	SW8270	ug/l	500	50	U	50	U
67-72-1	Hexachloroethane	SW8270	ug/l	3000	50	U	50	U
98-95-3	Nitrobenzene	SW8270	ug/l	2000	50	U	50	U
87-86-5	Pentachlorophenol	SW8270	ug/l	100000	120	U	120	U
110-86-1	Pyridine	SW8270	ug/l	5000	250	U	250	U
3-TCLP-Pests	**TCLP Pesticides**							
57-74-9	Chlordane	SW8081	ug/L	30	2.5	U	2.5	U
72-20-8	Endrin	SW8081	ug/L	20	0.5	U	0.5	U
58-89-9	Gamma-Bhc (Lindane)	SW8081	ug/L	400	0.25	U	0.25	U
76-44-8	Heptachlor	SW8081	ug/L	8	0.25	U	0.25	U
1024-57-3	Heptachlor Epoxide	SW8081	ug/L	8	0.25	U	0.25	U
72-43-5	Methoxychlor	SW8081	ug/L	10000	2.5	U	2.5	U
8001-35-2	Toxaphene	SW8081	ug/L	500	5	U	5	U

COMPARISON FLAGS:
-- Detected sample value does not exceed the limit.
~ -- No comparison.

Table 5

Indiana Harbor and Canal Site
Exceedance Table of Analytical Results

Cas Rn	Chemical Name	Analytic Method	Sample Code Lab ID Sample Date Unit \\	TCLP-Regs	IHC03-C4 WT2215-2 9/15/2003			IHC03-C5 WT2215-1 9/15/2003		
4-PCBs	**Aroclors**									
12674-11-2	Aroclor-1016	SW8082	ug/Kg	(b)	21	U		23	U	
11104-28-2	Aroclor-1221	SW8082	ug/Kg	(b)	21	U		23	U	
11141-16-5	Aroclor-1232	SW8082	ug/Kg	(b)	21	U		23	U	
53469-21-9	Aroclor-1242	SW8082	ug/Kg	(b)	21	U		23	U	
12672-29-6	Aroclor-1248	SW8082	ug/Kg	(b)	370		#	180		#
11097-69-1	Aroclor-1254	SW8082	ug/Kg	(b)	21	U		23	U	
11096-82-5	Aroclor-1260	SW8082	ug/Kg	(b)	59		#	41		#
5-TCLP-Metals	**TCLP-Inorganic Compounds**									
7440-38-2	Arsenic	SW6010B	ug/L	5000	10.65	U		13.9	B	#
7440-39-3	Barium	SW6010B	ug/L	100000	738		#	288		#
7440-43-9	Cadmium	SW6010B	ug/L	1000	1.25	U		1.25	U	
7440-47-3	Chromium	SW6010B	ug/L	5000	4.4	U		4.4	U	
7439-92-1	Lead	SW6010B	ug/L	5000	7.8	U		7.8	U	
7782-49-2	Selenium	SW6010B	ug/L	1000	11.6	U		11.6	U	
7440-22-4	Silver	SW6010B	ug/L	5000	5.8	U		5.8	U	
7439-97-6	Mercury	SW7470A	ug/L	200	0.04	B	#	0.04	U	
6-TCLP-Herbicides	**TCLP-Herbicides**									
94-75-7	2,4-D (Dichlorophenoxyacetic Acid)	SW8151	ug/L	10000	5	U		5	U	
93-72-1	Silvex (2,4,5-Tp)	SW8151	ug/L	1000	5	U		5	U	
7-TCLP-Chemistry	**TCLP-Total Solids, Ignitability, Sulfides**									
Ignit	Ignitibility	Ignite	Deg C	60 (a)	70	>		70	>	
Su-reac	Sulfide-Reactivity	SW846	mg/Kg	500 (a)	27	U		27	U	
TS	Total Solids	TS	%	N/A	80		~	73		~

COMPARISON FLAGS:

-- Detected sample value does not exceed the limit.
~ -- No comparison.
(a) -- According to EPA regulatory levels
(b) -- Total PCB Toxic Substances Control Act (TSCA) regulatory level is 50,000 µg/Kg

ORGANICS DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.

Table 6

Detected Sample Results,

Indiana Harbor and Canal, East Chicago, Indiana

	Compound	Regulatory Levels	IHC03-C1	IHC03-C1-D	IHC03-C2	IHC03-C3	IHC03-C4	IHC03-C5
TCLP VOCs (µg/L)	Benzene	500	11	12	-----	20	-----	-----
PCBs (µg/kg)	Aroclor-1248	(a)	-----	80	640	140	370	180
	Aroclor-1260	(a)	-----	-----	140	26	59	41
TCLP Metals (µg/L)	Arsenic	5,000	-----	-----	-----	-----	-----	13.9
	Barium	100,000	469	314	920	715	738	288
	Cadmium	1,000	2	-----	-----	-----	-----	-----
	Chromium	5,000	16	-----	-----	-----	-----	-----
	Lead	5,000	157	92.8	-----	208	-----	-----
	Selenium	1,000	16.2	-----	-----	-----	-----	-----
	Mercury	200	0.11	-----	-----	0.05	0.04	-----
	Total Solids (%)	N/A	84	84	81	79	80	73

Notes:
(a) Total PCB Toxic Substances Control Act (TSCA) regulatory level is 50,000 µg/Kg

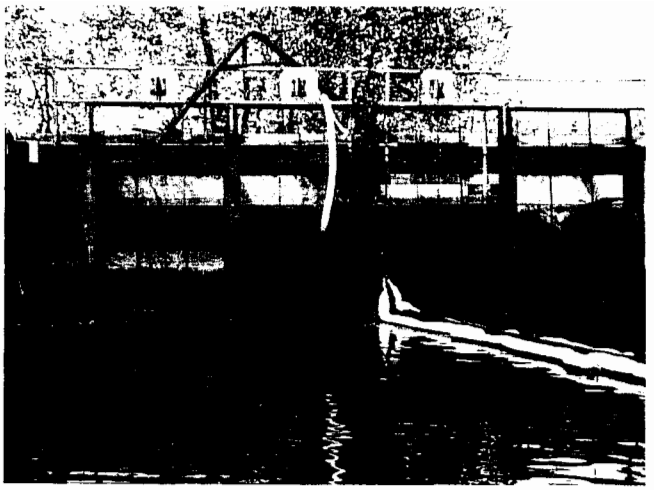
Note: ---- = Non-detect
D = Duplicate
All other results, including all results for SVOCs and pesticides/herbicides, were non-detect. See Appendix B for complete sample results.

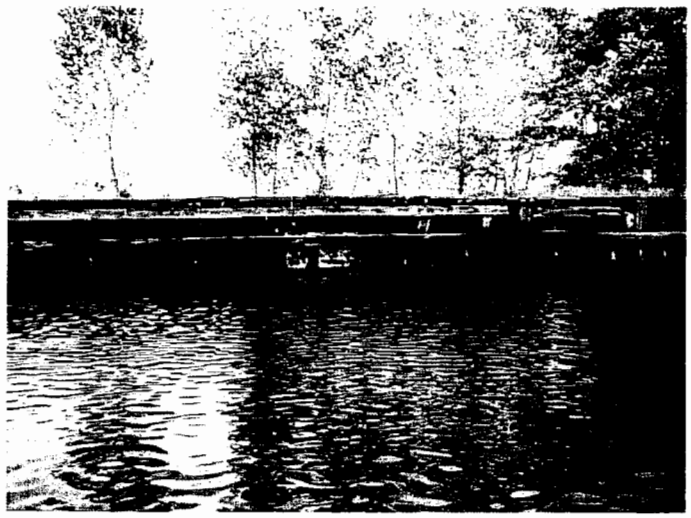
Appendixes

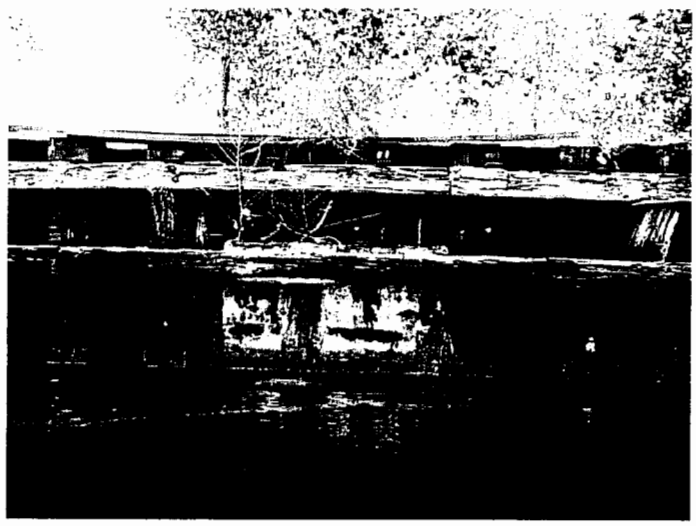
404(b)(1) Contaminant Determination Report
Indiana Harbor and Canal
Obstruction Removal, for Waterloo Barrier Installation
East Chicago, Indiana

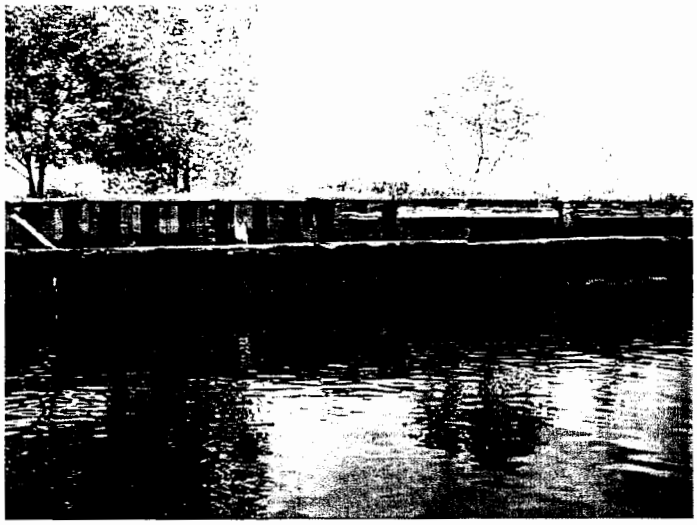
Appendix A

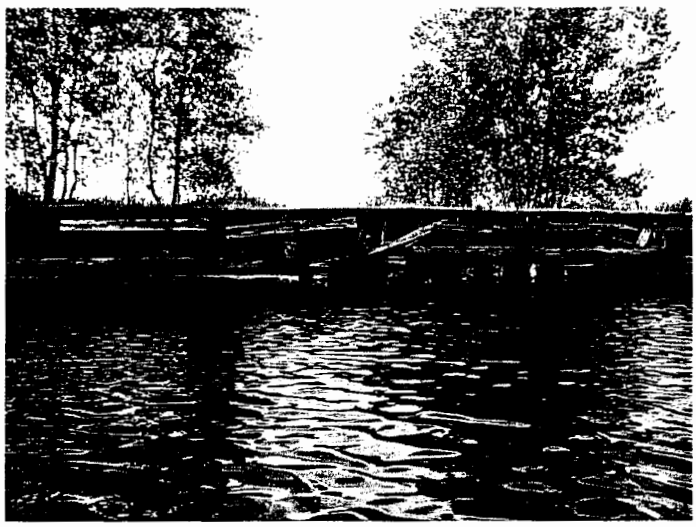
Photos of Existing Sheet pile Wall

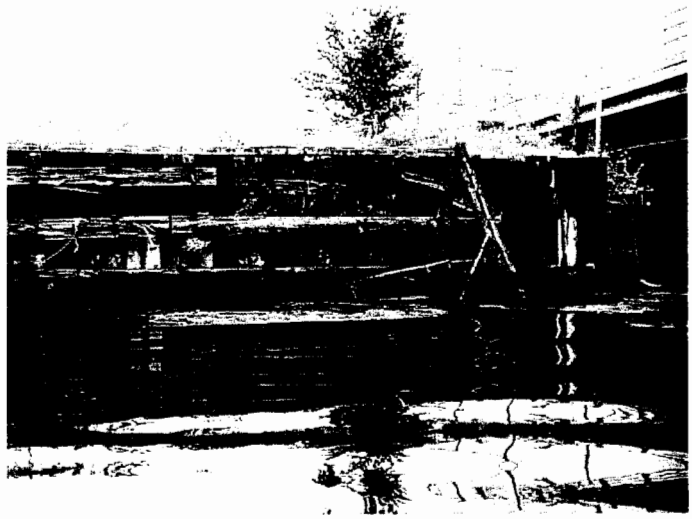


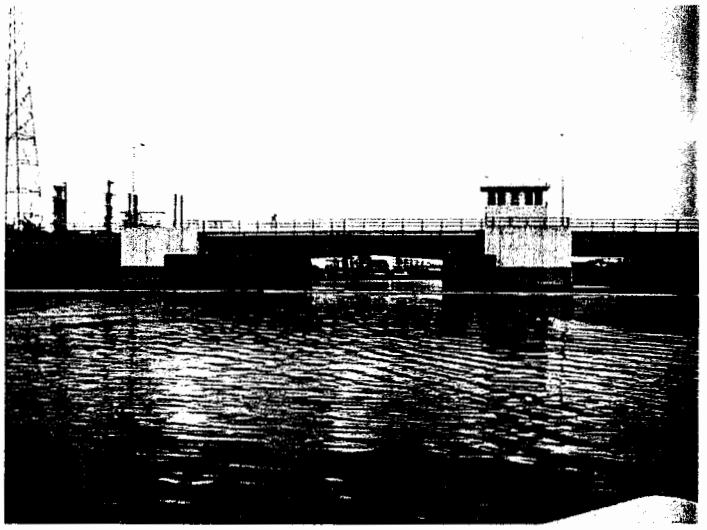












Appendix B

Scope of Work
for
Sediment Sampling and Analysis
Recent Investigation

SCOPE OF WORK
FOR
SEDIMENT SAMPLING AND ANALYSIS
AT
INDIANA HARBOR AND CANAL

PREPARED BY:

U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
111 NORTH CANAL STREET
CHICAGO, ILLINOIS 60606

May 16, 2003

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FIGURES:

Figure 1: Site Vicinity Map
Figure 2: Federal Project Area

ATTACHMENTS:

Attachment 1: Summary of USACE Indiana Harbor Sediment Quality Database (Data are from late 70's to mid 90's)
Attachment 2: Figure showing approximate pipeline locations in canal
Attachment 3: Boring logs from 2002 geotechnical investigation

1 Introduction

The U.S. Army Corps of Engineers (USACE), Chicago District, is planning to dredge Indiana Harbor and Canal in East Chicago, Indiana. The harbor has not been dredged since 1972. The bottom sediments in the IHC are contaminated and not suitable for open water disposal in Lake Michigan, nor are they suitable for unconfined upland disposal or beneficial use. The Site Vicinity map is shown in Figure 1.

The sediment will be contained in a CDF (Confined Disposal Facility) to be constructed on the ECI site. The south wall of the CDF will be a Waterloo Barrier®, constructed in the canal along the existing sheetpile wall. Prior to the installation of the Waterloo Barrier®, existing abandoned pipelines that cross the canal will need to be capped and removed. Additional debris may also exist in the canal. Based on prior sediment sampling events and on USEPA emergency response actions in the area, the pipelines are estimated to be located at 21' below the existing top of sediment. To remove the pipelines and other debris, limited dredging will be needed in the canal adjacent to the ECI site. The estimated dredging volume is 9,500 cubic yards.

1.1 Past Sampling Events

Patrick Engineering obtained soil borings at Indiana Harbor and Canal on July 18, 2002. The purpose of the work was to determine the physical characteristics of the sediment and the depth to clay in the canal. Boring were conducted using two different techniques: an Eijkelkamp hand-auger and piston sampler operated from a small pontoon boat in the canal; and a conventional drill rig mounted on an all terrain vehicle for other borings (the drill rig was equiped with a platform that allowed the drillers to work over the canal while the drill rig was on land).

Boring depths varied between 20 to 40' from the top of sediment. The top of the ground surface (top of the sheet piling along the canal) was approximately 586.5' MSL, the top of the water surface was approximately 579.3' MSL, and the top of the sediment varied from 556' to 570' MSL. The canal bottom consisted of a 2 – 5' layer of black organic silt overlying grey silt and silty sand deposites. The organic silt deposits were loose, while the silty sand was medium to dense. A clay layer exists under the silty layer, beginning at 548' to 560' MSL. The clay till consisted primarily of grey silty clay, with pocket penetrometer measurements ranging from 0.5 tsf to 4.0 tsf. In general, the stiffness of the clay increased with depth. Attachment 3 includes sample boring logs from the 2002 geotechnical investigation. Boring logs are provided for information only, and may not completely represent the range of conditions that will be encountered in executing the work.

Composite samples taken from the upper 2 feet of soils encountered at the bottom of the Lake George Canal were analyzed for total PCBs in 2002. Based on these sample results, it is not anticipated that values for PCB's will exceed 50 ppm. From historical sampling in other areas of the canal, it is not anticipated that the sediment would exceed TCLP concentrations. Historical sediment contaminant concentrations are given in Attachment 1; these data are provided as information only for the Contractor.

2 Sampling Plan

2.1 Objectives

The goal of this scope of work is to obtain chemical data for the sediments to be dredged from the Lake George Branch for the future removal of debris and installation of Waterloo Barrier along the existing sheetpile wall.

The sediment characterization will be used by the Corps to evaluate potential disposal options for the sediments (i.e. landfilling). The results will also be used by the Corps to obtain Section 401 Water Quality Certification from the State of Indiana.

2.2 General Description of Work

Sediment samples will be taken in the Lake George Branch at the Indiana Harbor and Canal. The approximate sediment sample locations are shown in Figure 2. The Contractor and a representative of the Chicago District shall jointly locate the exact sampling locations in the field prior to the start of the drilling. The only known obstructions near the canal wall are approximately 15 abandoned pipelines and an Ameritech fiber optics line that cross the canal. The Ameritech line is not within the project area. Attachment 2 is a figure showing the approximate pipeline locations in the Lake George Branch.

A total of five borings will be taken in the canal. The sediment samples are to be taken approximately 2 feet southward from the existing sheet pile wall. Samples will be taken to a depth of 550' MSL, approximately 25' below the existing top of sediment. Each boring will be composited into one representative sample, as discussed further below.

Currently, construction operations are on-going at the ECI site. The cutoff wall construction contractor, Environmental Quality Management, (EQ) will be on-site while this sediment investigation work proceeds. As such, the Contractor will be required to sign and abide by EQ's safety plan requirements. The Contractor shall coordinate his activities so as not to interfere with EQ. As a minimum, the Contractor shall assume that he will be required to review EQ's safety plan and attend an on-site safety briefing by EQ personnel prior to starting work. In addition, the Contractor would also need to review EQ's site security plan. The Contractor is also responsible for developing a safety plan to cover activities within this scope of work (see paragraph 5.2).

The Contractor should also be aware that EQ has a partnering agreement with local unions. The use of union labor is encouraged for this project.

3 Sample Collection

This sampling event will consist of the collection of sediment core samples. All samples taken from the Canal will be core samples. Cores will be composited for analysis.

3.1 Sediment Samples

The contractor shall collect sediment core samples. The borings shall be located in the canal approximately 2 feet south of the existing sheeting (i.e., the borings will be located over the water, near to the existing sheet pile wall). *It is recommended that the contractor use a drill rig equiped with a platform that allows the augers to extend out over the canal*, however a vessel-mounted drill rig, a split spoon sampler, an Osterburg piston tube sampler, or any other sampling method approved by the Chicago District that will yield a representative core sample may also be used. A Vibra-core sampler will not be acceptable for this work. The Contractor is advised that low bridges and shallow water in the Indiana Harbor and Canal, including the Lake George Branch, may cause access problems to the site for a large vessel. The Contractor will propose specific equipment, including the means of access, that will allow collection of the sediment samples to the required depth. Approximate locations of the five core samples are indicated in Figure 2.

Each core sample will be composited to yield a representative sample for analysis. Samples for Volatile Organic Compound (VOC) analysis will be as described in paragraph 3.2. Each sample will be a continuous core taken from the top of sediment to 550' MSL. The top of the sediment is at approximately EL 573. The Contractor is responsible for measuring the elevation of the top of sediment and for insuring and documenting that each sediment core is taken to the appropriate depth. The vertical location of each sample shall be referenced to an existing survey marker, and the depth of the core shall be verified.

The actual location of each core shall be documented by GPS. The positioning (GPS latitude and longitude) for each sample must be recorded on the sample log. For a handheld GPS unit, the accuracy for the coordinates must be within 50 feet (approximately 15 meters). Prior to sampling, it is the Contractor's responsibility to check that the GPS is in good working order and it is obtaining adequate satellite signal strength. Prior to the daily sampling activities, the accuracy of the GPS unit must be verified by comparing the GPS positioning to an existing survey marker.

The Contractor shall keep boring logs that document the sediment conditions encountered, including a field identification of the soil type. The logs shall include the sample number, location of the boring, elevation of the top of the sediment, and depth of boring.

3.2 Special Sampling Procedures for TCLP Volatile Organic Compound Analysis

Samples intended for Volatile Organic Compound (VOC) analysis will be collected prior to the compositing of the sediment core, using such procedures so as to cause as little disturbance to the sample as possible, and ensuring that there is "Zero Headspace" in the sample jar. VOC samples will be placed in a sample jar immediately after the extraction of the core sample. The samples will be sent to the Laboratory where the samples will be homogenized and in a cold room to minimize volatilization during sample extraction. The Corps representative will direct the selection of the VOC sample material in the field. The remainder of the sediment core sample volume intended for sediment bulk analysis may be homogenized in the field and placed in the

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appropriate sample containers. Any additional QA/QC precautions outlined in the QAPP (Reference 7(c)) will also be followed.

3.3 Sample Inventory, Handling and Logging

Table 1 provides a summary of the samples to be collected for this event. The contracting laboratory should review this table and determine exactly how much volume of sediment will be required to perform the analyses. Prior to sample collection, the Contractor's laboratories shall specify the sediment volumes required to perform all tests. The Contractor shall compile those in tabular format and include them in the Work Plan for USACE's review.

The contractor shall log the sediment samples as they are collected. The contractor shall collect the sediment samples using decontaminated stainless steel mixing equipment. The contractor shall place the sediment samples in appropriate containers to be provided by the Laboratory, fill out the container labels with sample date, location, sampler name, unique sample number, and any other required information. The contractor shall pack the samples in coolers with ice sufficient to maintain the samples at 4°C for 24 hours, using proper Chain-of-Custody procedures.

Table 1: Sediment Sampling Locations- Indiana Harbor and Canal Dredging

Sample ID #	Sample Type	Sample Location	Analyses and Methods
IHC03-C1	Core	East of pipelines on main refinery	• TCLP Full (metals, vocs, svocs, pest/herb) by SW 846/1311 • Close cup flash point by 1010 • Reactive sulfides by EPA 7.34 • Total PCB by 8082
IHC03-C2	Core	West of pipelines on main refinery	Same as above
IHC03-C3	Core	Main Channel	Same as above
IHC03-C4	Core	Main Channel	Same as above
IHC03-C5	Core	By Concrete Vault	Same as above

3.4 Sample Shipping

The contractor shall place the samples in appropriate containers, fill out the container labels with sample date, location, sampler name, unique sample number, and any other required information. Individual sample containers must be packed into sealable plastic bags to prevent direct contact with ice melt. The contractor shall pack the containers in insulated shipping boxes or coolers with ice sufficient to maintain the samples at 4°C for 24 hours. Ice must be placed inside sealable bags before being placed inside the shipping boxes. The contractor shall prepare Chain of Custody documentation for all samples collected. Final Chain of Custody documentation must be submitted with the final project report and/or the analytical data package. The contractor

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shall ship the sediment samples via *overnight delivery* to the analytical laboratory. Samples must be maintained at 4°C during shipping.

3.5 Sample Analysis

Sediment samples shall be analyzed for the constituents listed in Table 1. The methods for analysis shall be those listed in Table 1. The analytical work shall follow SW-846 methods and QA/QC requirements.

3.6 Decontamination

Since the samples collected are intended for environmental analysis, decontamination of any sampling or processing equipment which will come into direct contact with the sediment or water samples is required. The Contractor shall perform decontamination prior to collection of the first sample (either in the field or prior to arriving at the site). In addition, decontamination of sampling and processing equipment shall also be performed after each sampling location has been completed. Decontamination is required for water sampling equipment as well. Decontamination shall consist of at least washing with a Liquinox® solution (or equivalent phosphate-free detergent) using an inert stiff-bristled brush, and double rinse with distilled de-ionized water. **The detergent must be free of phosphorous.**

3.7 Investigation Derived Waste

The Contractor shall collect all non-aqueous and non-sediment waste generated from the execution of the field sampling activity, such as used personal protective equipment (gloves, tyvek suits, etc.), and any other non-aqueous investigation derived waste (IDW) into large high density polyethylene bags. The bags shall be stored with the sampling vessel and equipment until they can be properly disposed. The IDW generated in this sampling event is not anticipated to be hazardous, and may be disposed in conventional waste containers. It is the responsibility of the Contractor to insure that the disposal of the IDW does not violate applicable Federal, State and Local laws and/or regulations.

4 Quality Assurance/Quality Control

All aspects of analytical data quality shall be guided by IDEM's RCRA Quality Assurance Project Plan, 1995 (Reference 7(c)), as well as Reference 7(b) and 7(d) listed at the end of this document. The analytical data package shall be consistent with the Contract Laboratory Program (CLP) level for reporting and validation. This includes, but is not limited to, sample data summary sheets, raw data, laboratory control sample (LCS) recoveries, matrix spike / matrix spike duplicate (MS/MSD) recoveries and relative percent differences, surrogate recoveries, CLP data flags, case narratives, instrument and extraction blank results, check standard recoveries, and initial calibration data. All data quality must be sufficient to support enforcement level (Level IV) uses, as described in Reference 7(b).

QA/QC samples will include a minimum of one set of Field Duplicate Samples for every batch of up to twenty samples.

5 Submittals

The Contractor will provide the following submittals for government review and approval prior to the start of sampling work:

(a) Work Plan, and
(b) Health and Safety Plan.

A copy of the Scope of Work, a copy of the Work Plan, and a copy of the Health and Safety Plan must be kept with the Contractor at all times during the sampling project.

5.1 Work Plan

Prior to performing any field work, the Contractor must have an approved Work Plan for sampling and analysis activities. At a minimum, the work plan must include detailed discussion of the following items:

- vessel launch locations or site access requirements for vehicles;
- make and model for sediment sampling equipment, and sampling methods for each type of analysis, including methods for minimizing volatilization during VOC sample collection;
- make, model, and specifications for GPS equipment to be used, proposed differential correction method to be used, and associated software;
- vertical sample referencing methods and survey marker location;
- methods for sample shipment, including sample shipping containers and methods for maintaing samples at 4°C;
- field sampling crew members names and credentials;
- laboratory to be used for all analyses and laboratory's in-house QAPP (may be provided separately);
- sample field data logging form and sample chain of custody form.

The Contractor shall submit the Work Plan for review to the USACE within 14 calendar days of the Notice to Proceed. Chicago District will review the Work Plan and provide comments to the Contractor. The Contractor shall incorporate the USACE comments (if provided) and resubmit the Work Plan within 7 calendar days of having received the USACE comments. An approved Work Plan must be in place before any fieldwork can begin. The Contractor should assume that the USACE review of the Work Plan requires a minimum of 7 calendar days.

5.2 Health and Safety Plan

Prior to the start of any fieldwork, the Contractor shall have an approved, site-specific Health and Safety Plan. The Health and Safety Plan must meet the requirements of the USACE Safety and Health Requirements Manual (EM 385-1-1), 29 CFR 1910.120 and 29 CFR 1926.65, as applicable. The Health and Safety Plan must also meet the applicable Indiana state and local government health and safety requirements. It should be noted that for this project the site workers are required to have had 40-hour hazardous site worker training and, if necessary, a current 8-hour annual refresher training course.

The Contractor shall submit the Health and Safety Plan for review to USACE within 14 calendar days of the Notice to Proceed (NTP). The USACE, Chicago District, will review the Health and Safety Plan and provide comments to the Contractor. The Contractor shall address the USACE comments (if provided) and submit the Final Health and Safety Plan within 7 calendar days of having received the USACE comments. The Final Health and Safety Plan must be approved before any fieldwork can commence.

The Contractor shall coordinate site access and safety plan requirements with Environmental Quality, the contractor already working on the site. Coordination with EQ shall be made by contacting Mr. Eric Bowman, EQ Site Superintendent, 219-937-7282 (site trailer phone number.)

The Contractor is advised that the Indiana Harbor and Canal sediment is historically contaminated. Elevated concentrations of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and various metals are well documented throughout the canal. Attachment 1 to this Scope of Work includes a summary of the USACE, Chicago District Indiana Harbor Sediment Quality Database (data is from the late 1970's to the mid 1990's). This information is provided for reference only, and for consideration in the preparation of the Contractor's Health and Safety plan.

6 Reporting Requirements

All fieldwork, including sample collection and shipment, shall be completed within 28 calendar days of final approval of the Work Plan and Health and Safety Plan. The *draft* analytical results, including QA/QC data, shall be provided to USACE at the address shown below within 28 calendar days of the laboratory receipt of the last sample. The draft analytical results shall be provided as one electronic copy of the reporting package and one summary table of analytical results. The government shall review the draft results and QA/QC data and shall provide comments or notification that the data are acceptable. The Contractor shall provide 1 bound and 1 un-bound paper copy of the final reporting package (without QA/QC results), 1 complete electronic copy in PDF format, and the summary table in electronic format, within 14 calendar days of receiving comments or notification from the Corps. The summary table electronic format shall be MS Excel 2000 or equivalent software.

The final reporting package shall include:

- Narrative project description and summary of sample collection activities
- Map of actual sampling locations, with table of sampling locations including GPS coordinates, water depth, sample depth (referenced to MSL);
- Water Surface elevation data for each day of sampling;
- Laboratory analytical and QA/QC results (in electronic format only);
- Chain of Custody sheets and field notes;
- Other pertinent information.

All submittals and reports shall be submitted to the following address. Point of Contact for this Scope of Work is Ms. Natalie Mills at (312) 846-5509.

U.S. Army Corps of Engineers, Chicago District
Attn: CELRC-TS-HE
111 N. Canal St., Suite 600
Chicago, IL 60606-7206

7 References

a) Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual, 'Inland Testing Manual', joint USEPA / USACE publication, Reference #: EPA-823-B-98-004, February 1998.
b) Solid Waste Program Analytical Data Deliverable Requirements: A Guidance Document, IDEM Guidance, Office of Solid and Hazardous Waste Management (OSHWM # 0038-01-SW), March 1998.
c) RCRA Quality Assurance Project Plan, State of Indiana, Dept. of Environmental Management, 1995.
d) Guidance to the Performance and Presentation of Analytical Chemistry Data, IDEM Guidance, Technical Waste Assessment, Rev. 1, July 16, 1998.
e) Great Lakes Dredged Material Testing and Evaluation Manual, joint USEPA-USACE publication, Final Draft Version, September 30, 1998, available web-site as follows: http://www.epa.gov/glnpo/sediment/gltem/manual.htm
f) Plumb, Russell H., Procedures for Handling and Chemical Analysis of Sediment and Water Samples, USEPA/USACE Technical Committee on Criteria for Dredged and Fill Material, May 1981.
g) USACE Safety and Health Requirements Manual (EM 385-1-1)

Figure 1: Site Vicinity map at Indiana Harbor and Canal

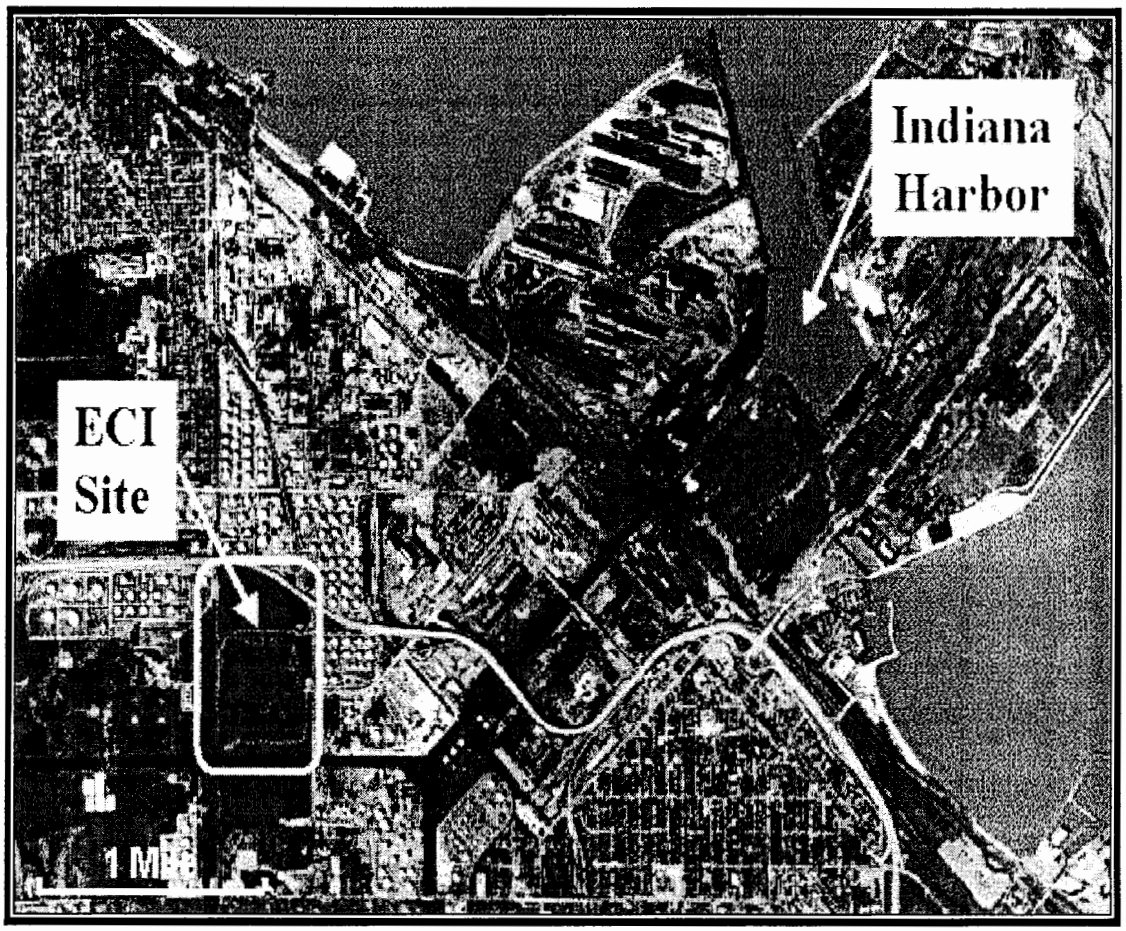
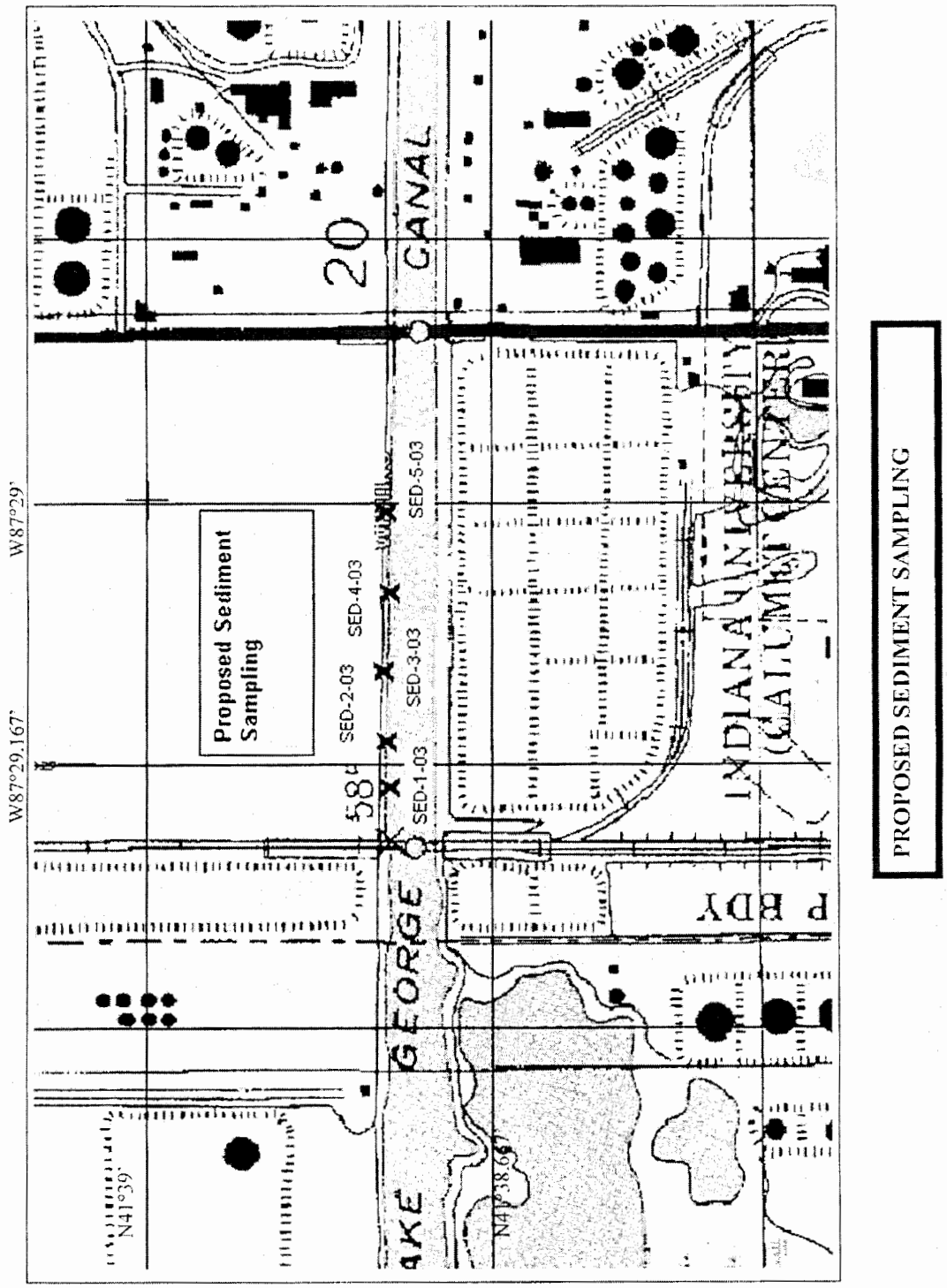


Figure 2: Approximate Sampling Locations



Attachment 1

Summary of USACE Indiana Harbor Sediment Quality Database
(Data is from late 70's to mid 90's)

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Summary of USACE Indiana Harbor Sediment Quality Database

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
4,4-DDD	Max of CONCEN			0.316		
	Average of CONCEN			0.103		
	Count of CONCEN			18		
4,4-DDE	Max of CONCEN			0.0563		
	Average of CONCEN			0.0382		
	Count of CONCEN			15		
ACENAPHTHENE	Max of CONCEN			55.0		
	Average of CONCEN			19.5		
	Count of CONCEN			28		
ACENAPHTHYLENE	Max of CONCEN			630		
	Average of CONCEN			37.8		
	Count of CONCEN			22		
ALDRIN	Max of CONCEN			0.0448		
	Average of CONCEN			0.0448		
	Count of CONCEN			1		
ALKALINITY	Max of CONCEN					216
	Average of CONCEN					117
	Count of CONCEN					12
ALUMINUM	Max of CONCEN			15000		1.19
	Average of CONCEN			8760		0.668
	Count of CONCEN			20		4
AMMONIA NITROGEN	Max of CONCEN			3900		31.1
	Average of CONCEN			682		3.89
	Count of CONCEN			96		14
ANTHRACENE	Max of CONCEN			310		
	Average of CONCEN			29.8		
	Count of CONCEN			29		
ANTIMONY	Max of CONCEN			42.4		
	Average of CONCEN			23.5		
	Count of CONCEN			18		
ARSENIC	Max of CONCEN	0.13		220	0.379	0.02
	Average of CONCEN	0.098		51.9	0.194	0.0145
	Count of CONCEN	5		108	7	9
BARIUM	Max of CONCEN	1.23		334	0.928	0.079
	Average of CONCEN	0.768		118	0.666	0.0314
	Count of CONCEN	5		52	17	12
BENZENE	Max of CONCEN			28	0.575	
	Average of CONCEN			6.65	0.114	
	Count of CONCEN			7	10	
BENZO(A)ANTHRACENE	Max of CONCEN			230		
	Average of CONCEN			39.6		
	Count of CONCEN			34		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
BENZO(A)PYRENE	Max of CONCEN			150		
	Average of CONCEN			22.5		
	Count of CONCEN			33		
BENZO(B) FLUORANTHENE	Max of CONCEN			120		
	Average of CONCEN			23.3		
	Count of CONCEN			33		
BENZO(G,H,I)PERYLENE	Max of CONCEN			34.6		
	Average of CONCEN			10.7		
	Count of CONCEN			25		
BENZO(K) FLUORANTHENE	Max of CONCEN			60		
	Average of CONCEN			10.6		
	Count of CONCEN			33		
BERYLLIUM	Max of CONCEN			5		
	Average of CONCEN			2.66		
	Count of CONCEN			11		
BOD	Max of CONCEN					53
	Average of CONCEN					15.1
	Count of CONCEN					11
BORON	Max of CONCEN			550		
	Average of CONCEN			358		
	Count of CONCEN			13		
CADMIUM	Max of CONCEN	0.019		93.7		
	Average of CONCEN	0.0134		15.1		
	Count of CONCEN	5		131		
CALCIUM	Max of CONCEN			88800		
	Average of CONCEN			39600		
	Count of CONCEN			20		
CHLORIDE	Max of CONCEN					572
	Average of CONCEN					102
	Count of CONCEN					12
CHROMIUM	Max of CONCEN	0.178		4470	1.08	0.034
	Average of CONCEN	0.121		610	0.297	0.0119
	Count of CONCEN	5		151	14	9
CHRYSENE	Max of CONCEN			400		
	Average of CONCEN			62.1		
	Count of CONCEN			34		
COBALT	Max of CONCEN			23		
	Average of CONCEN			12.8		
	Count of CONCEN			5		
COD	Max of CONCEN			760000		299
	Average of CONCEN			215000		61.4
	Count of CONCEN			76		14

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
COPPER	Max of CONCEN			850		0.048
	Average of CONCEN			200		0.0173
	Count of CONCEN			132		7
CYANIDE	Max of CONCEN			3		0.32
	Average of CONCEN			1.64		0.0834
	Count of CONCEN			9		13
D-BHC	Max of CONCEN			0.006		
	Average of CONCEN			0.00413		
	Count of CONCEN			2		
DIBENZO(A,H) ANTHRACENE	Max of CONCEN			16.2		
	Average of CONCEN			3.48		
	Count of CONCEN			18		
DIELDRIN	Max of CONCEN			0.0257		
	Average of CONCEN			0.0185		
	Count of CONCEN			16		
DISSOLVED SOLIDS	Max of CONCEN					1620
	Average of CONCEN					425
	Count of CONCEN					12
ENDOSULFAN II	Max of CONCEN			0.0403		
	Average of CONCEN			0.0375		
	Count of CONCEN			2		
ETHYLBENZENE	Max of CONCEN			3.4		
	Average of CONCEN			1.27		
	Count of CONCEN			8		
FINES (<200)	Max of CONCEN		99.6			
	Average of CONCEN		73.1			
	Count of CONCEN		30			
FLUORANTHENE	Max of CONCEN			650		
	Average of CONCEN			69.8		
	Count of CONCEN			34		
FLUORENE	Max of CONCEN			380		
	Average of CONCEN			40.1		
	Count of CONCEN			31		
FLUORIDE	Max of CONCEN					1.5
	Average of CONCEN					0.504
	Count of CONCEN					12
HEPTACHLOR EPOXIDE	Max of CONCEN			0.0122		
	Average of CONCEN			0.00934		
	Count of CONCEN			4		
INDENO(1,2,3-C,D)PYRENE	Max of CONCEN			34		
	Average of CONCEN			9.88		
	Count of CONCEN			19		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
IRON	Max of CONCEN			332000		2.85
	Average of CONCEN			108000		1.15
	Count of CONCEN			157		14
LEAD	Max of CONCEN	0.54		8940	0.894	0.032
	Average of CONCEN	0.474		846	0.270	0.026
	Count of CONCEN	5		179	17	2
LINDANE	Max of CONCEN			0.007		
	Average of CONCEN			0.007		
	Count of CONCEN			1		
M,P-XYLENES	Max of CONCEN			60		
	Average of CONCEN			11.6		
	Count of CONCEN			9		
MAGNESIUM	Max of CONCEN			50000		16.5
	Average of CONCEN			15600		14.9
	Count of CONCEN			98		2
MANGANESE	Max of CONCEN			38200		0.203
	Average of CONCEN			2010		0.0813
	Count of CONCEN			164		13
MERCURY	Max of CONCEN	0.0003		3		0.0019
	Average of CONCEN	0.00025		1.06		0.000308
	Count of CONCEN	2		99		12
MOLYBDENUM	Max of CONCEN			66000		
	Average of CONCEN			46900		
	Count of CONCEN			7		
NAPHTHALENE	Max of CONCEN			5800		
	Average of CONCEN			1080		
	Count of CONCEN			7		
NICKEL	Max of CONCEN			394		0.008
	Average of CONCEN			84.6		0.008
	Count of CONCEN			166		1
NO3 NITROGEN	Max of CONCEN			71		
	Average of CONCEN			42.1		
	Count of CONCEN			7		
NO3/NO2 NITROGEN	Max of CONCEN					0.87
	Average of CONCEN					0.454
	Count of CONCEN					14
O-XYLENE	Max of CONCEN			17		
	Average of CONCEN			3.38		
	Count of CONCEN			10		
OIL & GREASE	Max of CONCEN			212000		100
	Average of CONCEN			42600		21.1
	Count of CONCEN			90		7

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
ORG NITROGEN	Max of CONCEN			8130		
	Average of CONCEN			4990		
	Count of CONCEN			7		
PHENANTHRENE	Max of CONCEN			1170		
	Average of CONCEN			192		
	Count of CONCEN			34		
PHENOL	Max of CONCEN			3800		0.014
	Average of CONCEN			107		0.008
	Count of CONCEN			36		13
POTASSIUM	Max of CONCEN			9980		
	Average of CONCEN			7530		
	Count of CONCEN			3		
PYRENE	Max of CONCEN			500		
	Average of CONCEN			91.0		
	Count of CONCEN			34		
SELENIUM	Max of CONCEN	0.002		6.9	0.06	0.015
	Average of CONCEN	0.00133		4.13	0.06	0.015
	Count of CONCEN	3		34	1	1
SILVER	Max of CONCEN	0.011		22		
	Average of CONCEN	0.0088		7.57		
	Count of CONCEN	5		7		
SODIUM	Max of CONCEN			2.5		
	Average of CONCEN			1.04		
	Count of CONCEN			5		
SULFATE	Max of CONCEN					188
	Average of CONCEN					74.7
	Count of CONCEN					12
SULFIDE	Max of CONCEN			2800		
	Average of CONCEN			1800		
	Count of CONCEN			7		
SUSPENDED SOLIDS	Max of CONCEN					166
	Average of CONCEN					37.2
	Count of CONCEN					12
TETRACHLOROETHENE	Max of CONCEN			0.533		
	Average of CONCEN			0.533		
	Count of CONCEN			1		
THALLIUM	Max of CONCEN			7.7		
	Average of CONCEN			4.2		
	Count of CONCEN			6		
TIN	Max of CONCEN			470		
	Average of CONCEN			280		
	Count of CONCEN			10		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
TITANIUM	Max of CONCEN			320		
	Average of CONCEN			221		
	Count of CONCEN			7		
TKN	Max of CONCEN			10800		43.7
	Average of CONCEN			2670		6.31
	Count of CONCEN			72		14
TOC	Max of CONCEN		14.5	93000		95
	Average of CONCEN		10.7	16500		15.5
	Count of CONCEN		18	48		14
TOLUENE	Max of CONCEN			55		
	Average of CONCEN			8.59		
	Count of CONCEN			9		
TOTAL CYANIDE	Max of CONCEN			24.1		
	Average of CONCEN			10.5		
	Count of CONCEN			18		
TOTAL PCB	Max of CONCEN			115		
	Average of CONCEN			15.7		
	Count of CONCEN			127		
TOTAL PHOSPHORUS	Max of CONCEN			9600		3.36
	Average of CONCEN			2410		0.391
	Count of CONCEN			81		13
TOTAL SOLIDS	Max of CONCEN		95.5			
	Average of CONCEN		54.7			
	Count of CONCEN		124			
TRPH	Max of CONCEN			119000		
	Average of CONCEN			72000		
	Count of CONCEN			18		
VANADIUM	Max of CONCEN			340		0.007
	Average of CONCEN			137		0.007
	Count of CONCEN			12		2
VOLATILE SOLIDS	Max of CONCEN		28.7	21.5		
	Average of CONCEN		11.3	21.5		
	Count of CONCEN		123	1		
ZINC	Max of CONCEN			10000		0.109
	Average of CONCEN			3230		0.0745
	Count of CONCEN			168		11

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Attachment 2

Pipeline locations in Lake George Branch

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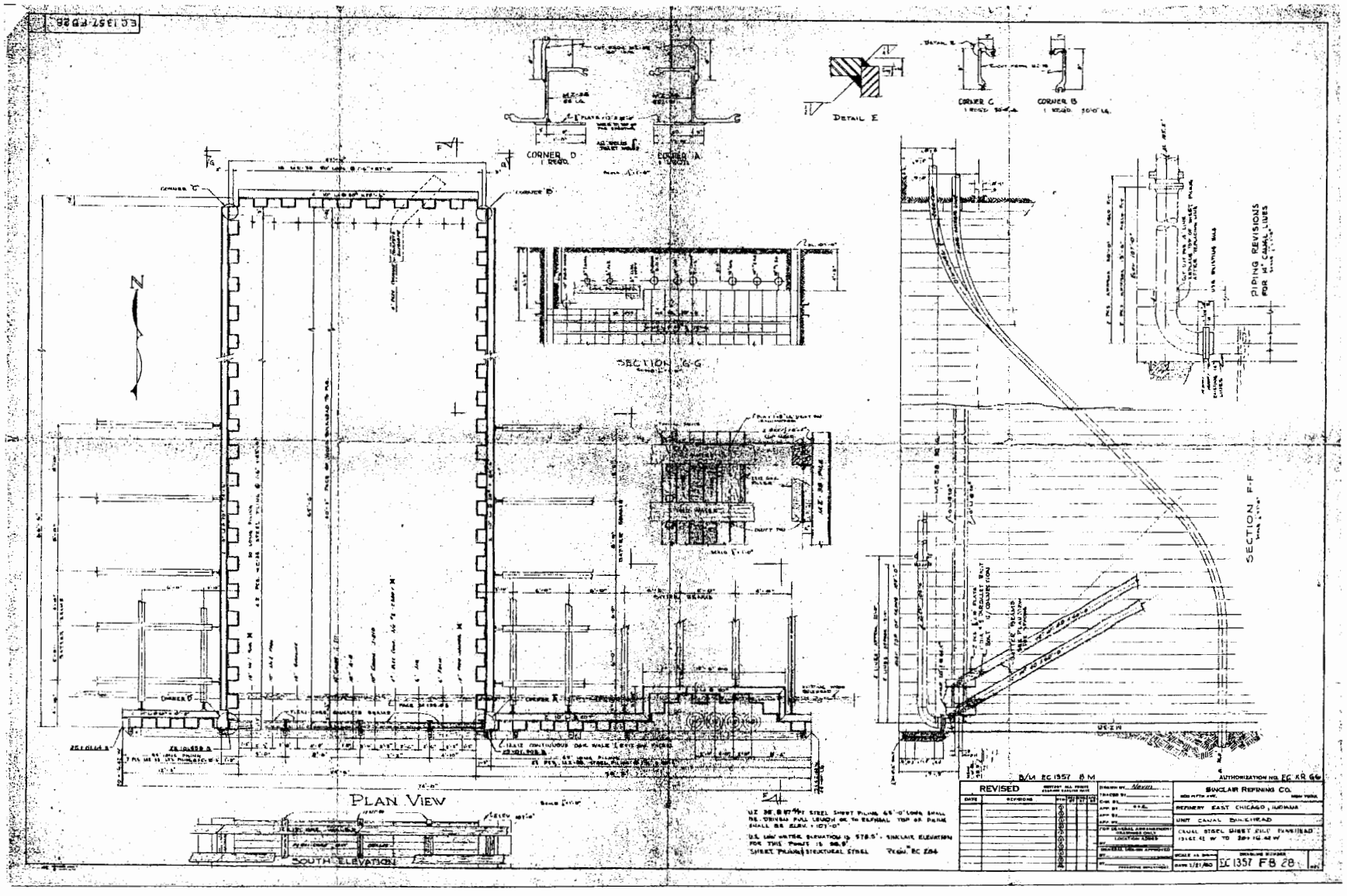

NOTE:

3. THIS DRAWING IS FOR REFERENCE ONLY. THE INFORMATION SHOWN MAY OR MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD THAT THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATION OR CONCLUSION DRAWN THEREFROM BY THE CONTRACTOR.

2. PIPES WITH THE SYMBOL ⊠ WERE NOT SHOWN ON THE EPA REPORT DURING EPA'S REMOVAL OF 50 LF OF PIPES AS SHOW ON SHEET C-03.

50% BCOE REVIEW

US Army Corps of Engineers Chicago District

SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY RFB	DATE NOVEMBER 2003		
DRAWN BY RFB	SCALE AS SHOWN		
CHECKED BY JT	LOCATION NUMBER DACW23-06-B-XXXX		
SUBMITTED BY:		DATE:	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
EXISTING CANAL STEEL SHEETPILE BULKHEAD

SHEET REFERENCE NUMBER:
C-10
SHEET 08 OF 12

Attachment 3

Boring logs from 2002 geotechnical investigation of Lake George Branch

CONFIDENTIALITY NOTICE: Property of the Corps of Engineers. This document may be exempt from release by the Federal FOIA.

Appendix C

Soil Boring Logs
and
Field Notes

Hole No. SED-1-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.3 ; E 390629.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-1-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>24.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	24.2
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation.
	5					
	10					
	15					
559.3	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (modified by GCA 1/94)

PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SED-1-02

Hole No. SED-1-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.3 ; E 390629.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-1-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>24.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	24.2
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.6	21.7		Bottom of Canal			
			Loose, black organic SILT, trace fine sand, saturated OL	30"/30"	PS-1 21.7 24.2	Top of retaining wall elevation is 586.6' (TRW). Depth to sediment as measured using a weighted 2-foot long slug is 29.0 feet below TRW PS-1 sample collected was composited for chemical analysis of PCB's; SED-1-02 Time: 2:18pm Date: 7/18/02 Analytical Results date reported 7/31/02 Aroclor 1016 <0.25 ppm Aroclor 1221 <0.25 ppm Aroclor 1232 <0.25 ppm Aroclor 1242 = 2.8 ppm Aroclor 1248 <0.25 ppm Aroclor 1254 <0.25 ppm Aroclor 1260 =1.21 ppm
555.1	24.2		End of Boring at 24.2' below Top of Canal			

Hole No. SED-2-02

DRILLING LOG	DIVISION Lakes & Rivers	INSTALLATION Chicago District	SHEET 1 OF 1 SHEETS

1. PROJECT IHC CDF S. Cutoff Wall Investigation	10. SIZE AND TYPE OF BIT Hand Auger / Piston Sampler
2. LOCATION (Coordinates or Station) N 1510757.6 ; E 389448.5	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL (NGVD 29)
3. DRILLING AGENCY Patrick Engineering Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL Eijkelkamp Hand Auger Equipment
4. HOLE NO. (As shown on drawing title and file number) SED-2-02	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
5. NAME OF DRILLER Letzel/Gliszewski	14. TOTAL NUMBER CORE BOXES 0
6. DIRECTION OF HOLE [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER 579.3
	16. DATE HOLE: STARTED Jul 18, 02; COMPLETED Jul 18, 02
7. THICKNESS OF OVERBURDEN >13.1	17. ELEVATION TOP OF HOLE 579.3
8. DEPTH DRILLED INTO ROCK 0	18. TOTAL CORE RECOVERY FOR BORING - %
9. TOTAL DEPTH OF HOLE 13.1	19. SIGNATURE OF INSPECTOR Scott Ritzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation.
	5					
572.0	7.3		Bottom of Canal			
			Loose, black organic SILT, saturated OL	72"/72"	PS-1 7.3 13.1	Top of retaining wall elevation is 586.2 Bottom of canal as measured using a weighted 2-foot long slug is 14.2 feet below TRW Composite sample SED-2-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time: 1:30pm Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 5.77 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 1.1 ppm
569.1	10.2					
568.6	10.7		Loose, gray fine SAND, trace silt, saturated SM			
			Loose, black organic SILT, saturated OL			
567.2	12.1					
			Loose, gray fine SAND, poorly graded, saturated SP			
566.2	13.1		End of Boring at 13.1' below Top of Canal			
	15					
559.3	20					

Hole No. SED-3-02

DRILLING LOG	DIVISION Lakes & Rivers	INSTALLATION Chicago District	SHEET 1 OF 1 SHEETS

1. PROJECT IHC CDF S. Cutoff Wall Investigation	10. SIZE AND TYPE OF BIT: Hand Auger / Piston Sampler
2. LOCATION (Coordinates or Station) N 1510759.7 ; E 389321.4	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
3. DRILLING AGENCY Patrick Engineering Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: Eljelkamp Hand Auger Equipment
4. HOLE NO. (As shown on drawing title and file number): SED-3-02	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
5. NAME OF DRILLER Letzel/Gliszewski	14. TOTAL NUMBER CORE BOXES: 0
6. DIRECTION OF HOLE [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: 579.3
7. THICKNESS OF OVERBURDEN: >14.5	16. DATE HOLE: STARTED Jul 18, 02; COMPLETED Jul 18, 02
8. DEPTH DRILLED INTO ROCK: 0	17. ELEVATION TOP OF HOLE: 579.3
9. TOTAL DEPTH OF HOLE: 14.5	18. TOTAL CORE RECOVERY FOR BORING: - %
	19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
570.8	8.5		Bottom of Canal			
570.4	8.9		Very loose black organic SILT, saturated OL	72"/72"	PS-1 8.5 14.5	Top of retaining wall (TRW) elevation is 586.1 Bottom of canal as measured using a weighted 2-foot long slug is 15.3' below TRW Composite sample SED-3-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time collected: 12:00pm Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 9.18 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 1.56 ppm
			Loose, black to gray coarse to fine SAND, trace silt, saturated SM			
	10					
566.8	12.5		Loose black organic SILT, trace wood fibers, saturated OL			
564.8	14.5		End of Boring at 14.5' below Top of Canal			
	15					
559.3	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (modified by GCA 1/94)

PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SED-3-02

Hole No. SED-4-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 1 SHEETS

1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510759.2 ; E 389297.4
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-4-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>14.5
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	14.5
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 1 ; UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED: Jul 18, 02 ; COMPLETED: Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc.; if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
570.8	8.5		Bottom of Canal Loose, black organic SILT, trace fine sand, saturated OL	72"/72"	PS-1 8.5 14.5	Top of retaining wall (TRW) elevation is 586.1 Bottom of canal as measured using a weighted 2-foot long slug is 15.3 feet below TRW Composite sample SED-4-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time collected: 12:30pm Date: 7/18/02 Analytical Results Reported 7.31.02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 0.844 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 0.211 ppm
569.5	9.8		Loose, black to dark gray fine SAND, poorly graded, trace silt, saturated SP-SM			
	10					
566.8	12.5		Loose, dark gray to black coarse to fine SAND, trace to little silt, saturated SM			
564.8	14.5		End of Boring at 14.5' below Top of Canal			
	15					
559.3	20					

Hole No. SED-5-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 1 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510759.9 ; E 389270.5
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-5-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>14.3
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	14.3
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
571.0	8.3		Bottom of Canal			
570.4	8.9		Loose, black organic SILT, saturated OL	72"/72"	PS-1 8.3 14.3	Top of retaining wall (TRW) elevation is 586.2 Bottom of canal as measured using a weighted 2-foot long slug is 15.2 feet below TRW Composite sample SED-5-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis for PCB's. Time collected: 12:42p Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 2.05 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 0.546 ppm
	10		Loose, gray fine SAND, poorly graded, trace silt, saturated SP-SM			
566.0	13.3		Loose, gray to black fine SAND, little organic silt, saturated SM			
565.0	14.3		End of Boring at 14.3' below Top of Canal			
	15					
559.3	20					

September 17, 2003 Investigation

Chemical Characterization
for Disposal Requirements

Soil Boring Logs
and
Field Notes

CAMP DRESSER & McKEE
CDM
125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C1

Client: U.S. Army Corps of Engineers
Project Name: Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana
Project Number: 6152-004

Drilling Contractor: RD-N-P Drilling
Surface Elevation (ft.): 574.2
Drilling Method/Rig: HSA/Deidrich ATV
Total Depth (ft.): 24
Drillers: William Goodwin and Alvin Martin
Depth to Initial Water Level (ft. BGS):
Drilling Date: Start: 9/17/03 **End:** 9/17/03
Abandonment Method: Bentonite Chips w/sediment
Borehole Coordinates:
Field Screening Instrument: PID
N 2,331,012.30 E 2,842,183.30
Logged By: Mark Peters

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. / Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			574.2					
SS	1	24/2	0	2.5 *	1-24"		GM	SILTY GRAVEL-loose, black, some organics, oil staining and petroleum odor noted, saturated
SS	2	24/6		6.8 *	2 1 1 2		SP	SAND-fine to medium grained, gray, little gravel, oil staining and petroleum odor noted, saturated
SS	3	24/18	569.2 / 5	271	2 2 7 14		SP	SAND-loose to medium dense, fine to medium grained, gray, petroleum odor noted, saturated
SS	4	24/18		180	7 14 17 21			
SS	5	24/22	564.2	182	7 12 18 25			
SS	6	24/22	10	183	7 10 17 28		SM	SILTY SAND-medium dense, gray, fine grained, saturated
SS	7	24/18		175	11 14 19 15			
SS	8	24/22	559.2 / 15	90	6 14 19 18			
SS	9	24/20		127	9 7 7 7		CL	SILTY CLAY-stiff, gray, trace sand, wet 4 inch silty sand seam @ 18 feet
SS	10	24/8	554.2	5	5 5 4 5			

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
HSA - Hollow Stem Auger
SSA - Solid Stem Auger
HA - Hand Auger
AR - Air Rotary
DTR - Dual Tube Rotary
FR - Foam Rotary
MR - Mud Rotary
RC - Reverse Circulation
CT - Cable Tool
JET - Jetting
D - Driving
DTC - Drill Through Casing

SAMPLING TYPES:
AS - Auger/Grab Sample
CS - California Sampler
BX - 1.5" Rock Core
NX - 2.1" Rock Core
GP - Geoprobe
HP - Hydro Punch
SS - Split Spoon
ST - Shelby Tube
WS - Wash Sample
OTHER:
AGS - Above Ground Surface

REMARKS

Surface elevation and sample depth relative to top of sediment.
Shore elevation 587.4 feet MSL.
7.6 feet from ground surface (shore) to water surface.
13.2 feet from ground surface (shore) to top of sediment.

* PID reading direct from spoon - not based on bag sample.

Reviewed by: Date:

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE
CDM
125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C1

Client: U.S. Army Corps of Engineers **Project Name:** Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana **Project Number:** 6152-004

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. / Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			554.2 / 20					
SS	11	24/12		6	4 5 7 7		CL	SILTY CLAY-stiff, gray, wet
SS	12	24/14		6	5 5 6 7			
			549.2 / 25					End of Boring @ 24 feet bgs.
			544.2 / 30					
			539.2 / 35					
			534.2 / 40					
			529.2 / 45					
			524.2 / 50					
			519.2 / 55					
			514.2					

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE

CDM

125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C2

Client: U.S. Army Corps of Engineers
Project Name: Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana
Project Number: 6152-004

Drilling Contractor: RD-N-P Drilling
Surface Elevation (ft.): 572.3
Drilling Method/Rig: HSA/Deidrich ATV
Total Depth (ft.): 22
Drillers: William Goodwin and Alvin Martin
Depth to Initial Water Level (ft. BGS):
Drilling Date: Start: 9/16/03 **End:** 9/16/03
Abandonment Method: Bentonite Grout
Borehole Coordinates:
Field Screening Instrument: PID
N 2,331,012.00 E 2,842,389.90
Logged By: Kirsten Dickson

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			572.3					
SS	1	24/20	0	269	24		SM	SILTY SAND-loose, brown to gray, saturated, oil, sheen, and petroleum odor noted
SS	2	24/18		74	10 12 13 16		SM	SILTY SAND-medium dense, gray, fine grained sand, petroleum odor, saturated
SS	3	24/0	567.3 5		26 17 16 11			No Recovery @ 4-6 feet bgs.
SS	4	24/18		21	7 8 8 8		SM	SILTY SAND-medium dense, gray, fine grained sand, petroleum odor, saturated
SS	5	24/1		5.5	6 5 4 5			1/2" sand seam @ 8'
			562.3				CLG	GRAVELLY CLAY- medium stiff, gray, petroleum odor, wet
							CL	SILTY CLAY-medium stiff, gray, petroleum odor, wet
SS	6	24/12	10	5.8	2 3 7 9		CL	SILTY CLAY-medium stiff, gray, wet
SS	7	24/15		2.3	2 3 5 7			
SS	8	24/14	557.3 15	23	2 3 5 5			
SS	9	24/14		8	3 4 6 9			
SS	10	24/12	552.3	5.0	2 3 3 3			

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
HSA - Hollow Stem Auger
SSA - Solid Stem Auger
HA - Hand Auger
AR - Air Rotary
DTR - Dual Tube Rotary
FR - Foam Rotary
MR - Mud Rotary
RC - Reverse Circulation
CT - Cable Tool
JET - Jetting
D - Driving
DTC - Drill Through Casing

SAMPLING TYPES:
AS - Auger/Grab Sample
CS - California Sampler
BX - 1.5" Rock Core
NX - 2.1" Rock Core
GP - Geoprobe
HP - Hydro Punch
SS - Split Spoon
ST - Shelby Tube
WS - Wash Sample
OTHER:
AGS - Above Ground Surface

REMARKS

Surface elevation and sample depth relative to top of sediment.
Shore elevation 584.9 feet MSL.
7.2 feet from ground surface (shore) to water surface.
12.6 feet from ground surface (shore) to top of sediment.

Reviewed by: **Date:**

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE

CDM

125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C2

Client: U.S. Army Corps of Engineers **Project Name:** Indiana Harbor Sediment Sampling

Project Location: Lake George Canal, East Chicago, Indiana **Project Number:** 6152-004

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			552.3					
			20					
SS	11	24/12		6.5	2 3 3 6		CL	SILTY CLAY-medium stiff, gray, wet
								End of Boring @ 22 feet bgs.
			547.3 / 25					
			542.3 / 30					
			537.3 / 35					
			532.3 / 40					
			527.3 / 45					
			522.3 / 50					
			517.3 / 55					
			512.3					

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE

CDM

125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C3

Client: U.S. Army Corps of Engineers
Project Name: Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana
Project Number: 6152-004

Drilling Contractor: RD-N-P Drilling
Surface Elevation (ft.): 563.21
Drilling Method/Rig: HSA/Deidrich ATV
Total Depth (ft.): 14
Drillers: William Goodwin and Alvin Martin
Depth to Initial Water Level (ft. BGS):
Drilling Date: Start: 9/16/03 **End:** 9/16/03
Abandonment Method: Bentonite Grout
Borehole Coordinates:
Field Screening Instrument: PID
N 2,331,003.80 E 2,842,673.60
Logged By: Kirsten Dickson

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			563.2					
SS	1	24/24	0	183	12 13 15 17		SPG	Top 2" of sediment organic muck
							SP-SM	GRAVELLY SAND-oil sheen, petroleum odor noted
								SAND-medium dense, fine grained, little sand, petroleum odor noted, saturated
SS	2	24/16		10	5 3 4 3		CL	4" gravelly sand @ top of spoon
								3' SILTY CLAY-medium stiff, gray, wet
SS	3	24/18	558.2 / 5	5.8	2 3 4 5		CL	SILTY CLAY-medium stiff, gray, wet 1/4" sand seam @ 5.5'
SS	4	24/18		9.7	2 4 5 7			
SS	5	24/18		5.5	2 2 4 5			
			553.2 / 10					
SS	6	24/18		10	1 2 3 5			
SS	7	24/20		2.0	2 3 4 6			
			548.2 / 15					End of Boring @ 14 feet bgs.
			543.2					

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
HSA - Hollow Stem Auger
SSA - Solid Stem Auger
HA - Hand Auger
AR - Air Rotary
DTR - Dual Tube Rotary
FR - Foam Rotary
MR - Mud Rotary
RC - Reverse Circulation
CT - Cable Tool
JET - Jetting
D - Driving
DTC - Drill Through Casing

SAMPLING TYPES:
AS - Auger/Grab Sample
CS - California Sampler
BX - 1.5" Rock Core
NX - 2.1" Rock Core
GP - Geoprobe
HP - Hydro Punch
SS - Split Spoon
ST - Shelby Tube
WS - Wash Sample
OTHER:
AGS - Above Ground Surface

REMARKS

Surface elevation and sample depth relative to top of sediment.
Shore elevation 585.31 feet MSL.
8.9 feet from ground surface (shore) to water surface.
22.1 feet from ground surface (shore) to top of sediment.

Reviewed by: **Date:**

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE

CDM

125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C4

Client: U.S. Army Corps of Engineers
Project Name: Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana
Project Number: 6152-004

Drilling Contractor: RD-N-P Drilling
Surface Elevation (ft.): 559.51
Drilling Method/Rig: HSA/Deidrich ATV
Total Depth (ft.): 6
Drillers: William Goodwin and Alvin Martin
Depth to Initial Water Level (ft. BGS):
Drilling Date: Start: 9/15/03 **End:** 9/15/03
Abandonment Method: Sediment Cave-In
Borehole Coordinates:
Field Screening Instrument: PID
N 2,330,999.70 E 2,842,996.60
Logged By: Mark Peters

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			559.5					
SS	1	24/15	0	24	1 1 3 5		CL	SILTY CLAY-soft, gray, petroleum odor noted, wet, water with oily sheen
SS	2	24/15		2	18 24 33 16			
SS	3	24/18	554.5 / 5	3.1	3 3 5 8			
			549.5 / 10					End of Boring @ 6 feet bgs.
			544.5 / 15					
			539.5					

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
HSA - Hollow Stem Auger
SSA - Solid Stem Auger
HA - Hand Auger
AR - Air Rotary
DTR - Dual Tube Rotary
FR - Foam Rotary
MR - Mud Rotary
RC - Reverse Circulation
CT - Cable Tool
JET - Jetting
D - Driving
DTC - Drill Through Casing

SAMPLING TYPES:
AS - Auger/Grab Sample
CS - California Sampler
BX - 1.5" Rock Core
NX - 2.1" Rock Core
GP - Geoprobe
HP - Hydro Punch
SS - Split Spoon
ST - Shelby Tube
WS - Wash Sample
OTHER:
AGS - Above Ground Surface

REMARKS

Surface elevation and sample depth relative to top of sediment.
Shore elevation 586.41 feet MSL.
9.2 feet from ground surface (shore) to water surface.
26.9 feet from ground surface (shore) to top of sediment.

End of Boring @ 6' bgs. due to equipment failure

Reviewed by: **Date:**

BL_US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

CAMP DRESSER & McKEE

CDM

125 South Wacker Drive, Suite 600
Chicago, Illinois 60606

BOREHOLE LOG
IHC03-C5

Client: U.S. Army Corps of Engineers
Project Name: Indiana Harbor Sediment Sampling
Project Location: Lake George Canal, East Chicago, Indiana
Project Number: 6152-004

Drilling Contractor: RD-N-P Drilling
Surface Elevation (ft.): 558.0
Drilling Method/Rig: HSA/Deidrich ATV
Total Depth (ft.): 8
Drillers: William Goodwin and Alvin Martin
Depth to Initial Water Level (ft. BGS):
Drilling Date: Start: 9/15/03 **End:** 9/15/03
Abandonment Method: Sediment Cave-In
Borehole Coordinates:
Field Screening Instrument: PID
N 2,330,992.00 E 2,843,384.60
Logged By: Mark Peters

Sample Type	Sample Number	Sample Recovery (Inches)	Elev. Depth (ft.)	Field Instrument Reading (ppm)	Blows per 6 Inches	Graphic Log	Stratum Designation	Material Description
			558.0					
SS	1	24/20	0	98	18 17 36 19		SP	SAND-medium dense to dense, gray, fine grained, wet 1 foot of sandy gravel with oil staining and petroleum odor, 1-2 feet bgs.
SS	2	24/12		30	4 10 9 5		SP	SAND-medium dense, gray, trace silt, saturated, slight sheen on water surface
SS	3	24/20	553.0 5	6	2 12 2		CL	SILTY CLAY-soft, gray, wet
SS	4	24/22		2.1	1 1 2 3			
			548.0 10					End of Boring @ 8 feet bgs.
			543.0 15					
			538.0					

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
HSA - Hollow Stem Auger
SSA - Solid Stem Auger
HA - Hand Auger
AR - Air Rotary
DTR - Dual Tube Rotary
FR - Foam Rotary
MR - Mud Rotary
RC - Reverse Circulation
CT - Cable Tool
JET - Jetting
D - Driving
DTC - Drill Through Casing

SAMPLING TYPES:
AS - Auger/Grab Sample
CS - California Sampler
BX - 1.5" Rock Core
NX - 2.1" Rock Core
GP - Geoprobe
HP - Hydro Punch
SS - Split Spoon
ST - Shelby Tube
WS - Wash Sample
OTHER:
AGS - Above Ground Surface

REMARKS

Surface elevation and sample depth relative to top of sediment.
Shore elevation 586.3 feet MSL.
8.7 feet from ground surface (shore) to water surface.
26.5 feet from ground surface (shore) to top of sediment.

Reviewed by: **Date:**

BL US ARMY CORPS.GPJ CDM_CORP.GDT 10/27/03

Location INDIANA HARBOR ~~CAP SITE~~ SEA SAMPLING Date 9/15/03.

Project / Client USACE

CDM: MARK PETERS
KIRSTEN DICKSON
DAVID BJOSTAD

NDM - P. - WILLIE GOOD WIN
ALVIN MARTIN

USACE - JENNIFER MILLER
NATALIE MILLS - 312-860-0137 - Cell Corps
773-343-6400 - Cell

WEATHER - SUNNY, 60-65°F, LIGHT W WIND

PURPOSE: SEDIMENT SAMPLING IN CHANNEL

7:45 - ARRIVED AT SITE - MET D. STORMS.
USACE: CHECKED IN W/GUARD.

8:00 - TALKED W/ ED WISE OF CDM ABOUT SITE SAFETY ISSUES. CONT. ROUND BRIEFED HASP.

8:30-9:30 SHOWED USACE SAMPLE LOCATION:

9:30 - DRILLER SETTING UP ON BARGE SED-5-03. ED WISE SHOWING M. PETERS WELL LOCATIONS THAT CAN BE USED AS ELEVATION REFERENCES.

Location INDIANA HARBOR ~~CAP SITE~~ SEA SAMPLING (CONT) Date 9/15/03 - 2

Project / Client

10:00 - SET UP FOR SUPERVISING SED-5-03.
REFERENCE IS MW26 TOC ELEV = 588.72

STA. 1: 1.11 (MW-26 TOC) = 3.51'
588.72
592.23

pt. 1 = 4.78'

592.23
4.78
587.45

STA. 2: 4.61'
587.45
592.06

10:35 - DRILLER LEFT SITE TO BUY LOOSE BLOCKS FOR PROTECTING PIPE.

SED. 5 - P. 2: 5.46'

592.06
5.46
586.60

11:00 - TWO OBSERVERS INSTEAD OF 1 OF EM ARE ON SITE TO OBSERVE DRILLING ACTIVITY
Steve West and Ryan Grobes

Location _____ Date 9/15/03 - 3

Project / Client _____

11:05 - SED-03 - location

586.5

DTW from water 8.7'

Elev: 577.8

586.5

Depth to sed. from water 28.5'

558.0

11:20 - Attempted to GPS location sed. sampling point.

- Instrument failure

11:35 Drill crew refusing to set.

11:50 - Begin drilling @ SED-5.

1305 Finished sampling SED-05
Continuous sampling for 0-8 feet
Maximum PID reading 98 ppm
at 0-2 feet. Prepared composite
sample CS (MD)
Name: IHCD3-~~05~~
Soil Type: Sand and silty clay
Parameters
1. TCLP VOCs - Took discrete sample
from each split spoon
Filled 2 oz jar
No preservative

Location _____ Date 9/15/03 - 4

Project / Client _____

No Headspace

- TCLP SVOCs
TCLP RCRA 8 metals
TCLP Pesticides/Herbicides
Close cup flash point
Reactive Sulfides
Total PCB
Composited split spoon samples
and filled 1 liter amber jar.

(MD) 13:15 - Begin drilling from the next sampling point
Bentonite.

13:40 Drilled SED 4 up on SED 4. Measured/
A. Dickson surveyed location.

USING MW 25 location for benchmark.

TOC Elev: 589.46'

589.46

Sm. - IH - 2.95'

592.41

PID → 5.90

(SED-4) Elev: 586.51

Location _____ Date 9/15/03-7

Project / Client _____

Depth to Water 9.2 feet
Depth to Sediment 26.9 feet

586.41
26.90
559.51

1500 End of boring at 6 ft bgs
During drilling from 6-8 ft drillers lost center plug and 5 ft of rod downhole. Therefore drilling was discontinued. CDH Decided to submit 0-6 ft composite. Approved by Natalie Mills of USACE.

Name: IHC03-C4
Soil Type: Silty Clay
Max PID: 24 ppm
Parameters and sample containers identical to IHC03-C5

1530-1700 - Prep GIS COC for samples for shipping.

Location _____ Date 9/15/03-8

Project / Client _____

1600 Surveyed SG-03 location
Surveyed off initial elevation 589.46'

~~STA 1 [illegible] 3.26'~~
~~[illegible] 589.46~~
~~592.72~~

STA 1 - 2,11 - 4.12
589.46
593.58
PT. 2 7.27
SG-3 elev. 585.31

From STA 1 - (2,11 593.58) - shot from SG-3
593.58
PT. 3 - 5.69
587.89

STA 2 - 2A, 7 4.54'
587.69
592.23

PT 4 - 7.34'
(SG-2 elev)

592.23
7.34
584.89

Location _____ Date _____

Project / Client _____

16:48 SURVEYED SEO OB - BEFORE = TOC of MW-11 (588.34

STA 1 I.H. = 4.23
588.34
592.57

FTS (Joint V) = 5.21
FUTE 587.36

1717 Signed out at security desk and left the site

[illegible] 9/15/03

Kt A. Dickson 9/15/03

Location _____ Date _____

Project / Client _____

Location INDIANA HARBOR SEDIMENT SAMPLING Date 9/16/03

Project / Client USACE

COM MAN PETER
KRISTIN OTTCHON

NOVO- WILLIAM GOODWIN
ALVIN MARTIN

6:30- ARRIVED AT SITE. CHECKED OUT GUARD,
SET UP AT MW3

6:40- DRILLING ARRIVE (NOVO)

~~8:00~~ MOBILIZED SEG-3 DOWN
DTW= 9.91' ECW= 585.31
- 8.9
576.41

DOWN TO SEG = 22.1' ELEV= 585.31
- 22.10
563.21

7:00- SET UP ON SEG-03

7:15- BEGAN DRILLING SEG-3.
NOTE- PID: GI DETECTION- COM 0252
AMBIENT AIR PID= 0.2

7:30- NATALIE MILLS AND LEE
FROM USACE ON-SITE TO
OBSERVE SAMPLING.

Location INDIANA HARBOR Date 9/16/03-2

Project / Client USACE

8:30- END DRILLING SEG-03
8:30- ~~PREPARATION~~ PREPARED COMPOSITE
SAMPLE FROM SEG-3 FROM 0-14' bgs.
NAME: IHC03-C3.
MAX. PID: 198 ppm (0-3')
PARAMETERS- TCL VOCS- TOV. 8260B
SAMPLE FROM EACH SPOT FROM ~20%
OTA, NO PRES, NO HEADSPACE.
SUBMITTED FOR PREPARATION OF COMPOSITE
TO LAB.
TCL SVOC, TCL HERBICIDES/PESTICIDES,
FLASH POINT, REACTIVE SULFIDES
TOTAL PCB:
PREPARED COMPOSITE SAMPLE AND
FILLED 1L GLASS JAR. (NO PRES.).

8:45- BEGAN BOREHOLE ABANDONMENT
PURE GOLD GROUT, BAGS- 1
WATER - 20 GALLONS.
NOTE: REQUIRED 10 GAL PREPARED FOR
NEXT HOLE. MIX 1 BAG TO 5 gal WATER
FOR EVERY 10' of borehole

Location IND. HARBOR Date 9/16/03

Project / Client USACE

9:45 - EXAMINING SGD-2 AND SGD-1 LOCATIONS - SGD-2 ACCESS BLOCKED BY TREES - DRILLER WILL ATTEMPT TO MANEUVER AROUND THEM.

10:05 - SET UP ON SGD-2

OPW = 7.2' ELEV - 584.9
7.2
577.7

DEPTH TO SGD = 12.6' - 584.9
12.6
572.3

10:20 - DRILLER LEAVE TO WORK / SAMPLING TO START WITH MEL

10:35 BEGIN SET-UP TO DRILL SGD-2.

11:45 - NOTE - DURING SGD-2 DRILLING AMBIENT PID: 0.5-0.7 ppm

13:05 - FINISHED DRILLING SGD-2 - 2.1 bgs - PREPARED COMPOSITE SAMPLE.
NAME: IHC 03-C2.
SOIL TYPE: SAND, SILTY SAND, SOME CLAY.
MAY PROBE 2CM.

Location IND. HARBOR Date 9/16/03

Project / Client USACE.

13:05 - SAMPLING PARAMETERS / CONTAINERS IDENTICAL TO IHC03-C1.

13:20 - BEGIN ABANDONMENT OF SGD-2.
BAG GROUT - 3
GALLONS WATER - 33

13:45 - GROUT PLACED - PREPARING AREAS

14:10 - HAND FINISHED AT SGD-2 - WILL SET UP ON SGD-1.

14:35 - FINISHED SET-UP ON SGD-1.

14:35 / 15:00 - DECONTAMINATED SAMPLING EQUIPMENT AT STAGING DECON PAD.

15:00 LEFT SITE.

9/16/03

Location Indiana Harbor Sediment Sampling Date 9/17/03

Project / Client USACE

CDM - Mark Peters
Kirsten Dickson

Rd-n-P William Goodwin
Alvin Martin

7:10 Arrived at site - Clear skies, windy

7:15 Drillers arrive

0728 Depth to Water (SED-1) 7.6 ft
Depth to Sediment 13.2 ft

587.4
-13.2
574.2

587.4
- 7.6
579.8

0730 Set up on site

0755 Natalie Mills
Shannon Rose arrive on site
USACE

0805 Began drilling SED-1
PID 0.0

Location Indiana Harbor Date 9/17/03

Project / Client USACE

0943 - Finished drilling SED-1

0945 - Prepared Composite
0953 - Filled amber jar

Sample from SED-1 from 0-24' bgs
Name: IHC03-C1
Max PID: 271
Parameters: TCLP VOCs - 2oz jar filled (no preservative, no headspace for each split spoon sample) to be composited in lab
TCLP SVOC, TCLP Herbicides/Pesticides, Flash Point, Reactive Sulfides, Total PCB - Prepared composite sample and filled 1L amber glass jar. (No pres)

1000 - Filled duplicate amber jar
Name: IHC03-C1-D
Parameters - Same as previous sample, VOC jars from C1 will be used to prepare composite for IHC03-C1-D.

Location Indiana Harbor Date 9/17/03

Project / Client USACE

1004 Began abandonment of SEB-1
Bags Grout ____
Gallons Water ____

1008 M. Peters logging grid coordinates of all 5 locations using Trimble Pro XRS GPS with Trimble TSC1- data logger

1025 Drillers trying to fix hydraulic pump.

1121 M. Peters went to decon pad to decon equipment

1130 Drillers Continue with abandonment

1150 Drillers stop to try to fix hydraulic pump.

Location Indiana Harbor Date 9/17/03

Project / Client USACE

1222- Unable to fix pump and bentonite grout is solidifying Rd-n-P requested to fill hole with bentonite chips. Rd-n-P went to order chips from office. Additional costs will not be incurred according to William Goodwin.

1230 - Left site to eat lunch

1300 - Returned from lunch

1324 - Driller returns with bentonite chips

1326 - Drillers discharged of bentonite slurry on ground surface next to borehole location. Natalie Mills and Shannon Rose of USACE agreed that was not a problem.

Location Indiana Harbor Date 9/17/03

Project / Client USACE

1330 Drillers begin pouring bentonite chips into hole

2 bags of bentonite chips used.

1341 Borehole abandonment complete

1350 SED-1 Complete. Drillers begin movement to decon pad.

1427 Drillers dispose of IDW on the site debris pile, as instructed by Natalie Mills of USACE

1446 Drillers begin decon of rig

1530 Sign Out
Leave Site

Kit A. Dickson
9/17/03

Location Date

Project / Client

Appendix D

September 17, 2003 Investigation
Chemical Characterization
for Disposal Requirements

Data Quality Assessment

CELRC-TS-HE (1110-2-1403a) 10 Nov 2003

MEMORANDUM FOR RECORD

SUBJECT: DATA QUALITY ASSESSMENT Indiana Harbor & Canal, In. Sediment Analyses, CDM FEDERAL SDG: IHC-1, 10-14-03

1. The USACE Chicago District contracted CDM Federal who subcontracted KATAHDIN Analytical Services, Inc. of Westbrook, Maine to analyze sediment and elutriate samples from Indiana Harbor and Canal, Indiana. The data will be used to obtain knowledge of the sediments to be dredged from the Lake George Branch of the canal for debris removal and Waterloo Barrier installation along the existing sheet pile wall. Potential sediment disposal options will be evaluated. The data will also be used to obtain Section 401 Water Quality Certification from the State of Indiana.

2. A total of six sediment samples were collected to satisfy the testing requirements. Sediment samples were collected from five locations from September 15th through September 17th, 2003. One field duplicate was collected. Forty-one containers of sediment were received in coolers on 16th September through 18th September in good condition and correctly labeled. One cooler was received each day within the 24-hour holding time at Katahdin. Cooler temperature blanks ranged from 2.7° to 4.8° Centigrade well within 4° ±2°C.

3. The analytical data was received from CDM by the USACE Chicago District by electronic mail on October 13th. The report and quality control (QC) data arrived on compact disk by October 17th 2003. The following parameter groups were analyzed for the Toxicity Characteristic Leaching Procedure (TCLP) test: volatile organics, semi volatile organics, pesticides, metals, and herbicides. In addition analysis was completed for PCB aroclors, total solids, ignitability, and sulfide reactivity. All the requested data are present. The laboratory quality assurance officer included a QC narrative using laboratory identification numbers.

4. The majority of the organic compounds analyzed by the Toxicity Characteristic Leaching Procedure (TCLP) were not detected above the laboratory's Practical Quantitation Limit (PQL). For PQLs that are significantly less than the TCLP regulatory limit, this is not a concern. However, when the PQL and TCLP regulatory limit are nearly the same, considerable uncertainty exists. This was observed in the draft laboratory data for vinyl chloride, where the reported PQL was equal to the TCLP regulatory limit of 0.2 mg/L. It should be noted that for the TCLP Volatile Organic Compound analysis, vinyl chloride is the threshold compound with the lowest TCLP regulatory limit. From discussions with the laboratory, it was learned that the

PQLs for this analysis were largely determined based on prior experience with other projects. To improve the confidence that the vinyl chloride data was below the TCLP regulatory limit, the laboratory reviewed the data and calibration curve and conducted a re-analysis to obtain a significantly lower PQL for vinyl chloride of 0.04 mg/L.

5. The QC case narrative from Katahdin sample receipt section key contains the Katahdin sample numbers corresponding to the CDM Corps project data sample numbers.

6. The terminology from the case narrative is detailed more fully in the following list:

8260 Analysis - Volatile Organics
8082 Analysis - PCBs
8151 Analysis - Chlorinated Herbicides
8270 Analysis - Semi-volatile Organics
8081 Analysis - Pesticides
TCLP - Toxicity Characteristic Leaching Procedure. TCLP extracts are identified by the suffix "T" appended to the Katahdin sample number.

7. Project samples IHC03- C5, C4, C3, and C2 contained tentatively identified PCB peaks. Project samples IHC03- C4, C3, and C1 had low semi-volatile surrogate recoveries outside the laboratory established acceptance limits. TCLP extraction, Inductively Coupled Plasma Atomic Emission Spectrometer, and Analysis of Mercury by Cold Vapor Atomic Absorption were also as noted in the case narrative. The reactive sulfide matrix spike recoveries for sample IHC03- C3 were below the laboratory's acceptance limits. More details on the quality control sample analysis conducted by Katahdin can be found in the narrative.

8. This was a level 3 review. All project data were reviewed including the quality control narrative. The analyses requested were performed using acceptable methods. According to the quality control narrative, most of the samples analyzed appear to be within quality control limits. The data appears to be acceptable and suitable for its intended purpose. Acceptance of this data package is recommended.

9. Reference

1. USEPA, Mar. 1983 Methods for Chemical Analysis of Water and Wastes, Environmental Monitoring and Support Laboratory, 1979. Revised March 1983. EPA-600/4-79-020.

2. USEPA, Nov. 1986, Test Methods for Evaluating Solid Waste, Volumes IA through IC and II, Office of Solid Waste and Emergency Response, Washington, DC 20460, SW-846 Third Edition.

3. USACE, 1 Feb 01, EM 200-1-3, Environmental Quality, Requirements for the Preparation of Sampling and Analysis Plans

Michael Neeley
Environmental Engineering

E-Mails

From: Mills, Natalie R LRC
To: Rose, Shannon R LRC
Subject: FW: Jay this is the email for Steve West
Date: Tuesday, February 17, 2004 11:09:01 AM
Attachments: Scope.doc
Meeting with IDEM.doc

Here are the documents

-----Original Message-----

From: Mills, Natalie R LRC

Sent: Tuesday, April 29, 2003 10:44 AM

To: Semmler, Jay A LRC

Cc: Mills, Natalie R LRC

Subject: Jay this is the email for Steve West

Steve,

Attached you will find the minutes from our meeting on April 17, 2003. Also attached is the revised scope. I have made corrections to pages 2,3, and 4 as discussed in the meeting.

Please review the scope as well as the minutes and forward your comments to me by Thursday May 1, 2003. If you have no additional comments, please acknowledge this by sending your concurrence to the sampling/disposal plan as it stands.

Please forward to Ryan for his review.

Thanks,
Natalie

Indiana Harbor and Canal, meeting with IDEM April 17, 2003

The meeting started at approximately 10:10 a.m. Present were the following:

USACE: Jennifer Miller, Natalie Mills, and Jay Semmler

IDEM: Steve West and Ryan Groves

Discussions

USACE will phone Ryan Groves at (317) 233-2406, 1 week prior to sediment sampling so the oil booms can be relocated.

IDEM was unclear of a sentence on page 2 in regards to the depth of the sampling. USACE will reword for clarity.

IDEM is requesting that USACE remove the word 'waiver' in regards to the 401 Water Quality Certification permit. USACE will reword the statement.

IDEM is concerned about the statement on free entrained water being returned back to the water. USACE explains that the bucket will sit for a minute or so to allow water to drip from the clamshell bucket. USACE will reword the statement. IDEM was fine with the explanation and the rewording for clarity.

IDEM is okay with material going to TSD facility.

If material is to be sent to a restricted waste landfill, IDEM wants more information on the facility.

No other questions or comments were made to the sampling/disposal plan.

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DISPOSAL/SAMPLING PLAN
FOR
SEDIMENT AND WATER SAMPLING AND ANALYSIS
AT
INDIANA HARBOR AND CANAL

PREPARED BY:

U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
111 NORTH CANAL STREET
CHICAGO, ILLINOIS 60606

January 23, 2017

CONFIDENTIALITY NOTICE: Property of the Corps of Engineers. This document may be exempt from release by the Federal FOIA.

1 Introduction

The U.S. Army Corps of Engineers (USACE), Chicago District, is planning to dredge Indiana Harbor and Canal in East Chicago, Indiana. The harbor has not been dredged since 1972. The bottom sediments in the IHC are contaminated and not suitable for open water disposal in Lake Michigan, nor are they suitable for unconfined upland disposal or beneficial use. The Site Vicinity map is shown in Attachment 1.

The sediment will be contained in a CDF (Confined Disposal Facility) to be constructed on the ECI site. The CDF is composed of 3 cells-west, east, and north. The cells are then further divided during the course of the 30-year project into sub-cells as dredged material becomes available. The south wall of the CDF will be a Waterloo Barrier®.

This scope of the project consists of debris removal for the installation of the Waterloo Barrier®. A map of Lake George Branch of the Indiana Harbor shipping canal is shown in Plate 1. Dredging for debris removal in the canal adjacent to the ECI site is proposed for this entire project area, which is estimated at 9,500 cubic yards.

Investigations need to be performed to locate, identify and remove all obstructions that would prevent installation of the Waterloo Barrier®. In late 2001, the USEPA's Emergency Response Branch contracted Environmental Quality Management to perform a removal/closeout of several pipelines that crossed under the Lake George Branch to address the recurring oil sheens and products observed in the canal. Pipeline removal, decontamination and closure were performed from October through December 2001.

USEPA initially planned a full removal of the pipelines from the canal. Anchoring of the pipeline sections at the bottom of the canal precluded removal in a cost effective manner, and consequently, many of the pipelines were left in place. The proposed pipes to be removed are shown in Plate 1. Sections of these remaining pipelines, along with additional obstructions that may be located in the survey and subsurface investigation of the existing south perimeter of the site will need to be removed to clear the drive line for installation of the Waterloo Barrier®. The sediment overlaying the remaining pipelines ranges in depth from 5 to 25 feet. In order to characterize this sediment for disposal, five (5) samples will be taken from a stretch of the canal approximately 1600' in length as shown in attachment 4. The sediment samples will extend down to the dredging depth required for the installation of the Waterloo Barrier.

In an attempt to obtain information on the quality of the sediment samples in this scope of the work, a correlation between the historical sediment samples and the work proposed will be made. The USEPA collected sediment core samples in 1990 and in 1992. In the 1990 sampling event, six samples were taken in the Indiana Harbor and Canal area. Only five of the samples were taken within the Federal navigation channel. These samples were tested according to the (Toxic Characteristic Leaching Procedure) TCLP test protocol. All of the parameters measured in the samples were below the regulatory levels given in the TCLP protocol, except for benzene in one sampling event.

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In the 1992 sampling event, fourteen samples were taken within the Federal Channel. The sediment was analyzed for metals, volatiles, semi-volatiles, and pesticides; TCLP analysis of the sediment Leachate included metals, volatiles, semi-volatiles, pesticides and herbicides. All the TCLP parameters of the samples were below the applicable regulatory thresholds except for the benzene concentration in one duplicate sample. Given that the actual sample was below regulatory thresholds, the USEPA/IDEM determined that the sediment within the navigation channel associated with this sample was "presumptively hazardous" and would either be re-sampled prior to dredging or this area would not be dredged by the USACE as part pf the navigation project. It should be noted that the "presumptively hazardous" area is in the Turning Basin and will not play a factor in the dredging proposed in this scope.

From these historical sampling events, it is not anticipated that the sediment would exceed TCLP regulatory thresholds. The historical data from the entire federal channel is shown in Attachment 2.

Patrick Engineering obtained soil borings at Indiana Harbor and Canal on July 18, 2002, using Eijkelkamp hand-auger and piston sampler. The results from Patrick Engineering are shown in Attachment 3. Composite samples were made from the upper 2 feet of sediment encountered at the bottom of the Lake George Canal. Based on these sample results, and the fact that the PCB hot spots (refer to Attachment 2 where the PCB maximum is 115 mg/kg) are not included in this project area, it is not anticipated that values for PCB's will exceed 50 ppm.

Project Objectives

The major objectives of this sample collection and analysis effort include the following:

- To obtain physical and chemical data for the sediments to be dredged from the Lake George Branch for installation of Waterloo Barrier.
- The sediment characterization will be used to evaluate potential disposal options for the sediments (i.e. landfilling).

The sediment data will be used to determine disposal alternatives. There will not be any effluent returning to the canal. The corps will be requesting a Section 401 Water Quality Certification from the State of Indiana for installation of the Waterloo Barrier. The corps will also be requesting a floodway permit from Indiana Department of Natural Resources (IDNR).

2 Sampling/Disposal Plan

The sediment samples are to be located in the canal, approximately 2 feet southward from the existing sheet pile wall. The only known obstructions near the canal wall are approximately 15 abandoned pipelines and an Ameritech fiber optics line that cross the canal. The Contractor and a representative of the Chicago District shall jointly locate the sampling locations in the field prior to the start of the drilling. The sediment samples shall be drilled using a rig equipped with a platform that allows the augers to extend out over the canal. The cutoff wall construction contractor, Environmental Quality

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Management, (EQ) will be on-site while this investigation work proceeds. As such, the Contractor will be required to sign and abide by EQ's safety plan requirements. The Contractor shall coordinate his activities so as not to interfere with EQ. As a minimum, the Contractor shall assume that he will be required to review EQ's safety plan and attend an on-site safety briefing by EQ personnel prior to starting work. In addition, the Contractor would also need to review EQ's site security plan. The Contractor is also responsible for developing a safety plan.

The dredging of the sediment will be accomplished by mechanical dredging. The dredging contractor will dredge all the material using a modified clamshell bucket. The Corps proposes to make modifications to the clamshell bucket by welding plates onto open areas in an attempt to prohibit the movement of excess water through the bucket. An environmental bucket (i.e. closed bucket) will not be effective since the large amount of debris would force the bucket open, rendering it ineffective. Also, environmental buckets are ineffective for dredging consolidated material. To minimize the movement of re-suspended solids, a silt curtain will be placed around the dredging area.

After a brief draining period, to minimize free water draining off the outside of the clamshell bucket, the sediment will be loaded into plastic lined roll-off boxes. No effluent will be allowed to reenter the waterway or spill on the ground during rehandling and truck loading (to the extent possible). The dredged material will then be hauled in the roll-off boxes to the ultimate disposal area, such as a TSD (Transportation Storage Disposal) or a waste disposal facility. Loaded trucks will be cleaned before leaving the loading areas to prevent any carrying of improperly loaded dredged materials from being carried onto roadways. The approximate amount of material to be dredged in order to remove the pipe obstructions in the Indiana Harbor Canal is 13,000 tons (or 9,500 cubic yards).

The USACE is proposing to take 5 sediment samples. The proposed samples are shown in Attachment 4. A GPS will be used in the field to get approximate locations. The sediment is to be tested according to the following parameters; landfill characterization (TCLP, paint filter, close-cup flash point, corrosivity), PCBs, and physical characteristics.

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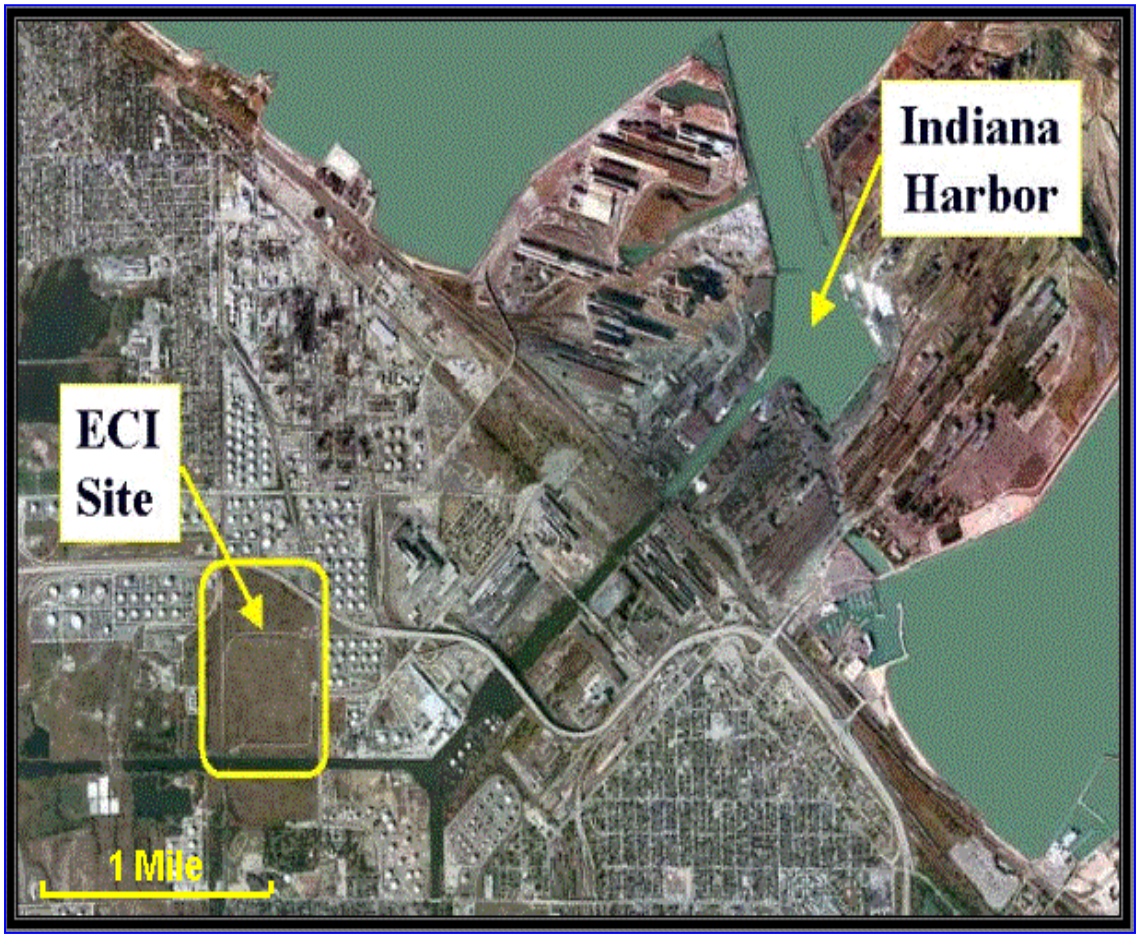
Attachment 1

Site Vicinity Map at Indiana Harbor and Canal



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Attachment 2

Summary of USACE Indiana Harbor Sediment Quality Database
(Data is from late 70's to mid 90's)

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Summary of USACE Indiana Harbor Sediment Quality Database

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
4,4-DDD	Max of CONCEN			0.316		
	Average of CONCEN			0.103		
	Count of CONCEN			18		
4,4-DDE	Max of CONCEN			0.0563		
	Average of CONCEN			0.0382		
	Count of CONCEN			15		
ACENAPHTHENE	Max of CONCEN			55.0		
	Average of CONCEN			19.5		
	Count of CONCEN			28		
ACENAPHTHYLENE	Max of CONCEN			630		
	Average of CONCEN			37.8		
	Count of CONCEN			22		
ALDRIN	Max of CONCEN			0.0448		
	Average of CONCEN			0.0448		
	Count of CONCEN			1		
ALKALINITY	Max of CONCEN					216
	Average of CONCEN					117
	Count of CONCEN					12
ALUMINUM	Max of CONCEN			15000		1.19
	Average of CONCEN			8760		0.668
	Count of CONCEN			20		4
AMMONIA NITROGEN	Max of CONCEN			3900		31.1
	Average of CONCEN			682		3.89
	Count of CONCEN			96		14
ANTHRACENE	Max of CONCEN			310		
	Average of CONCEN			29.8		
	Count of CONCEN			29		
ANTIMONY	Max of CONCEN			42.4		
	Average of CONCEN			23.5		
	Count of CONCEN			18		
ARSENIC	Max of CONCEN	0.13		220	0.379	0.02
	Average of CONCEN	0.098		51.9	0.194	0.0145
	Count of CONCEN	5		108	7	9
BARIUM	Max of CONCEN	1.23		334	0.928	0.079
	Average of CONCEN	0.768		118	0.666	0.0314
	Count of CONCEN	5		52	17	12
BENZENE	Max of CONCEN			28	0.575	
	Average of CONCEN			6.65	0.114	
	Count of CONCEN			7	10	
BENZO(A)ANTHRACENE	Max of CONCEN			230		
	Average of CONCEN			39.6		
	Count of CONCEN			34		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
BENZO(A)PYRENE	Max of CONCEN			150		
	Average of CONCEN			22.5		
	Count of CONCEN			33		
BENZO(B) FLUORANTHENE	Max of CONCEN			120		
	Average of CONCEN			23.3		
	Count of CONCEN			33		
BENZO(G,H,I)PERYLENE	Max of CONCEN			34.6		
	Average of CONCEN			10.7		
	Count of CONCEN			25		
BENZO(K) FLUORANTHENE	Max of CONCEN			60		
	Average of CONCEN			10.6		
	Count of CONCEN			33		
BERYLLIUM	Max of CONCEN			5		
	Average of CONCEN			2.66		
	Count of CONCEN			11		
BOD	Max of CONCEN					53
	Average of CONCEN					15.1
	Count of CONCEN					11
BORON	Max of CONCEN			550		
	Average of CONCEN			358		
	Count of CONCEN			13		
CADMIUM	Max of CONCEN	0.019		93.7		
	Average of CONCEN	0.0134		15.1		
	Count of CONCEN	5		131		
CALCIUM	Max of CONCEN			88800		
	Average of CONCEN			39600		
	Count of CONCEN			20		
CHLORIDE	Max of CONCEN					572
	Average of CONCEN					102
	Count of CONCEN					12
CHROMIUM	Max of CONCEN	0.178		4470	1.08	0.034
	Average of CONCEN	0.121		610	0.297	0.0119
	Count of CONCEN	5		151	14	9
CHRYSENE	Max of CONCEN			400		
	Average of CONCEN			62.1		
	Count of CONCEN			34		
COBALT	Max of CONCEN			23		
	Average of CONCEN			12.8		
	Count of CONCEN			5		
COD	Max of CONCEN			760000		299
	Average of CONCEN			215000		61.4
	Count of CONCEN			76		14

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
COPPER	Max of CONCEN			850		0.048
	Average of CONCEN			200		0.0173
	Count of CONCEN			132		7
CYANIDE	Max of CONCEN			3		0.32
	Average of CONCEN			1.64		0.0834
	Count of CONCEN			9		13
D-BHC	Max of CONCEN			0.006		
	Average of CONCEN			0.00413		
	Count of CONCEN			2		
DIBENZO(A,H) ANTHRACENE	Max of CONCEN			16.2		
	Average of CONCEN			3.48		
	Count of CONCEN			18		
DIELDRIN	Max of CONCEN			0.0257		
	Average of CONCEN			0.0185		
	Count of CONCEN			16		
DISSOLVED SOLIDS	Max of CONCEN					1620
	Average of CONCEN					425
	Count of CONCEN					12
ENDOSULFAN II	Max of CONCEN			0.0403		
	Average of CONCEN			0.0375		
	Count of CONCEN			2		
ETHYLBENZENE	Max of CONCEN			3.4		
	Average of CONCEN			1.27		
	Count of CONCEN			8		
FINES (<200)	Max of CONCEN		99.6			
	Average of CONCEN		73.1			
	Count of CONCEN		30			
FLUORANTHENE	Max of CONCEN			650		
	Average of CONCEN			69.8		
	Count of CONCEN			34		
FLUORENE	Max of CONCEN			380		
	Average of CONCEN			40.1		
	Count of CONCEN			31		
FLUORIDE	Max of CONCEN					1.5
	Average of CONCEN					0.504
	Count of CONCEN					12
HEPTACHLOR EPOXIDE	Max of CONCEN			0.0122		
	Average of CONCEN			0.00934		
	Count of CONCEN			4		
INDENO(1,2,3-C,D)PYRENE	Max of CONCEN			34		
	Average of CONCEN			9.88		
	Count of CONCEN			19		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
IRON	Max of CONCEN			332000		2.85
	Average of CONCEN			108000		1.15
	Count of CONCEN			157		14
LEAD	Max of CONCEN	0.54		8940	0.894	0.032
	Average of CONCEN	0.474		846	0.270	0.026
	Count of CONCEN	5		179	17	2
LINDANE	Max of CONCEN			0.007		
	Average of CONCEN			0.007		
	Count of CONCEN			1		
M,P-XYLENES	Max of CONCEN			60		
	Average of CONCEN			11.6		
	Count of CONCEN			9		
MAGNESIUM	Max of CONCEN			50000		16.5
	Average of CONCEN			15600		14.9
	Count of CONCEN			98		2
MANGANESE	Max of CONCEN			38200		0.203
	Average of CONCEN			2010		0.0813
	Count of CONCEN			164		13
MERCURY	Max of CONCEN	0.0003		3		0.0019
	Average of CONCEN	0.00025		1.06		0.000308
	Count of CONCEN	2		99		12
MOLYBDENUM	Max of CONCEN			66000		
	Average of CONCEN			46900		
	Count of CONCEN			7		
NAPHTHALENE	Max of CONCEN			5800		
	Average of CONCEN			1080		
	Count of CONCEN			7		
NICKEL	Max of CONCEN			394		0.008
	Average of CONCEN			84.6		0.008
	Count of CONCEN			166		1
NO3 NITROGEN	Max of CONCEN			71		
	Average of CONCEN			42.1		
	Count of CONCEN			7		
NO3/NO2 NITROGEN	Max of CONCEN					0.87
	Average of CONCEN					0.454
	Count of CONCEN					14
O-XYLENE	Max of CONCEN			17		
	Average of CONCEN			3.38		
	Count of CONCEN			10		
OIL & GREASE	Max of CONCEN			212000		100
	Average of CONCEN			42600		21.1
	Count of CONCEN			90		7

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
ORG NITROGEN	Max of CONCEN			8130		
	Average of CONCEN			4990		
	Count of CONCEN			7		
PHENANTHRENE	Max of CONCEN			1170		
	Average of CONCEN			192		
	Count of CONCEN			34		
PHENOL	Max of CONCEN			3800		0.014
	Average of CONCEN			107		0.008
	Count of CONCEN			36		13
POTASSIUM	Max of CONCEN			9980		
	Average of CONCEN			7530		
	Count of CONCEN			3		
PYRENE	Max of CONCEN			500		
	Average of CONCEN			91.0		
	Count of CONCEN			34		
SELENIUM	Max of CONCEN	0.002		6.9	0.06	0.015
	Average of CONCEN	0.00133		4.13	0.06	0.015
	Count of CONCEN	3		34	1	1
SILVER	Max of CONCEN	0.011		22		
	Average of CONCEN	0.0088		7.57		
	Count of CONCEN	5		7		
SODIUM	Max of CONCEN			2.5		
	Average of CONCEN			1.04		
	Count of CONCEN			5		
SULFATE	Max of CONCEN					188
	Average of CONCEN					74.7
	Count of CONCEN					12
SULFIDE	Max of CONCEN			2800		
	Average of CONCEN			1800		
	Count of CONCEN			7		
SUSPENDED SOLIDS	Max of CONCEN					166
	Average of CONCEN					37.2
	Count of CONCEN					12
TETRACHLOROETHENE	Max of CONCEN			0.533		
	Average of CONCEN			0.533		
	Count of CONCEN			1		
THALLIUM	Max of CONCEN			7.7		
	Average of CONCEN			4.2		
	Count of CONCEN			6		
TIN	Max of CONCEN			470		
	Average of CONCEN			280		
	Count of CONCEN			10		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
TITANIUM	Max of CONCEN			320		
	Average of CONCEN			221		
	Count of CONCEN			7		
TKN	Max of CONCEN			10800		43.7
	Average of CONCEN			2670		6.31
	Count of CONCEN			72		14
TOC	Max of CONCEN		14.5	93000		95
	Average of CONCEN		10.7	16500		15.5
	Count of CONCEN		18	48		14
TOLUENE	Max of CONCEN			55		
	Average of CONCEN			8.59		
	Count of CONCEN			9		
TOTAL CYANIDE	Max of CONCEN			24.1		
	Average of CONCEN			10.5		
	Count of CONCEN			18		
TOTAL PCB	Max of CONCEN			115		
	Average of CONCEN			15.7		
	Count of CONCEN			127		
TOTAL PHOSPHORUS	Max of CONCEN			9600		3.36
	Average of CONCEN			2410		0.391
	Count of CONCEN			81		13
TOTAL SOLIDS	Max of CONCEN		95.5			
	Average of CONCEN		54.7			
	Count of CONCEN		124			
TRPH	Max of CONCEN			119000		
	Average of CONCEN			72000		
	Count of CONCEN			18		
VANADIUM	Max of CONCEN			340		0.007
	Average of CONCEN			137		0.007
	Count of CONCEN			12		2
VOLATILE SOLIDS	Max of CONCEN		28.7	21.5		
	Average of CONCEN		11.3	21.5		
	Count of CONCEN		123	1		
ZINC	Max of CONCEN			10000		0.109
	Average of CONCEN			3230		0.0745
	Count of CONCEN			168		11

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TABLE 3
Summary of Soil Sample Chemical Analytical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	**SED-1-02**	**SED-2-02**	**SED-3-02**	**SED-4-02**	**SED-5-02**	**IDEM Default Closure Limit[2]**
Sample No.	PS-1	PS-1	PS-1	PS-1	PS-1	
Soil Class[3]	OL	OL	OL,SM	OL, SP-SM	OL, SP	
PCB Compounds						
Aroclor 1016	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1221	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1232	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1242	2.80	5.77	9.18	0.844	2.05	---
Aroclor 1248	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1254	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1260	1.21	1.10	1.56	0.211	0.546	---
Total PCBs	**4.01**	**6.87**	**10.74**	**1.055**	**2.596**	**5.3**

Notes:

1. Soil samples were obtained by Patrick Engineering Inc. on July 18, 2002, using Eijkelkamp hand-auger and piston sampler. Samples were composite samples made from the upper 2 feet of soils encountered at the bottom of the Lake George Canal. Chemical analyses were performed by First Environmental Laboratories, Naperville, Illinois, in accordance with SW846 Method No. 3540C/8082. Results are expressed as milligrams per kilogram (mg/kg).

2. Indiana Department of Environmental Management (IDEM) Default Closure Limit is from *Risk-Integrated System of Closure (RISC) Technical Guide and Users Guide*, Appendix 1, Table A (Industrial Sites).

3. Soil Class is in accordance with *Unified Soil Classification System*, ASTM D2487, e.g., OL is organic clay and organic silt, SM is silty sand, and SP is poorly graded sand. Refer to Boring Logs for detailed descriptions of soils encountered at each boring location.

4. Shaded value identifies result that exceeds the *RISC* Default Closure Limit.

Attachment 3: PCB Test Results from Patrick Engineering

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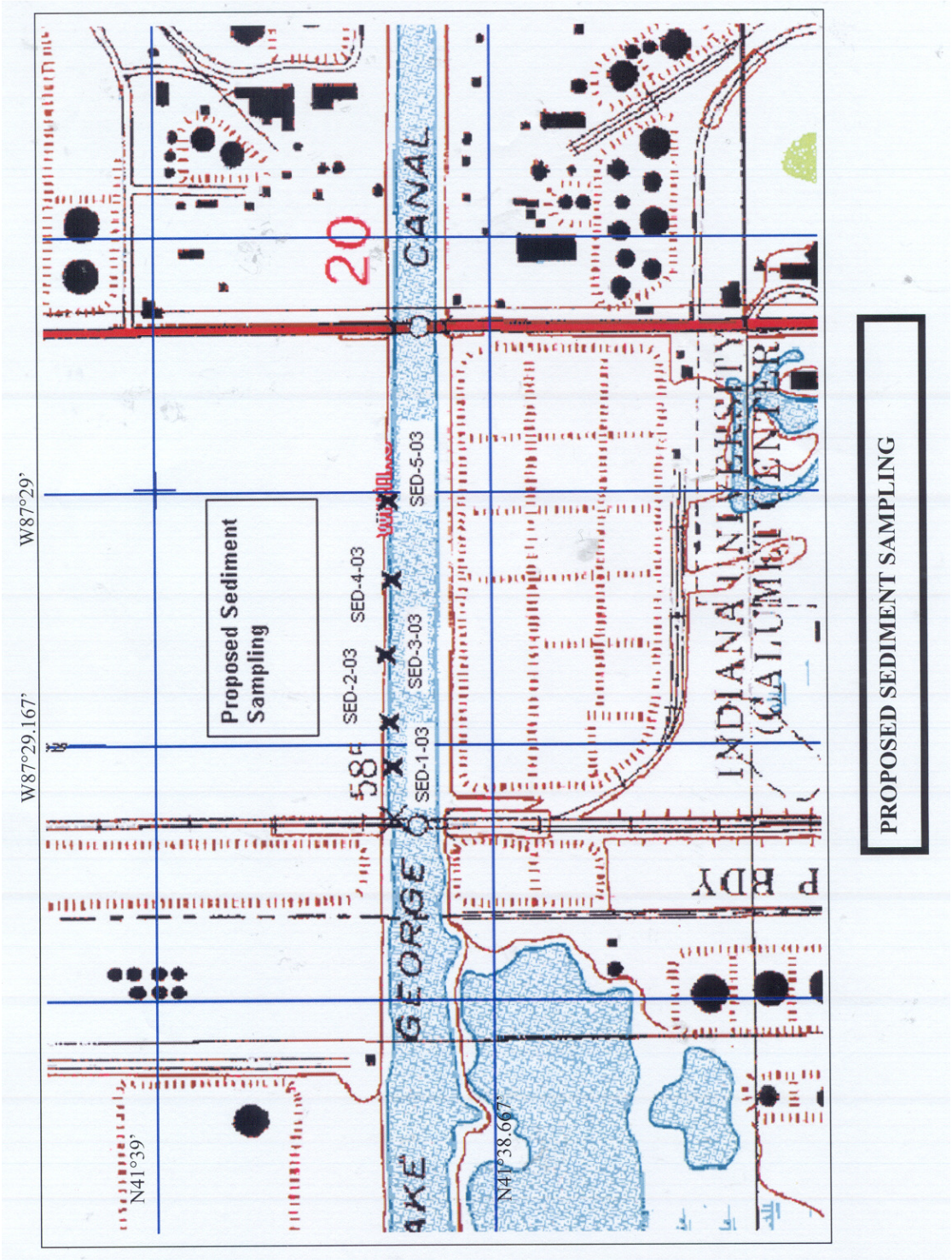

Attachment 4: Proposed Sediment Sampling

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PLATES

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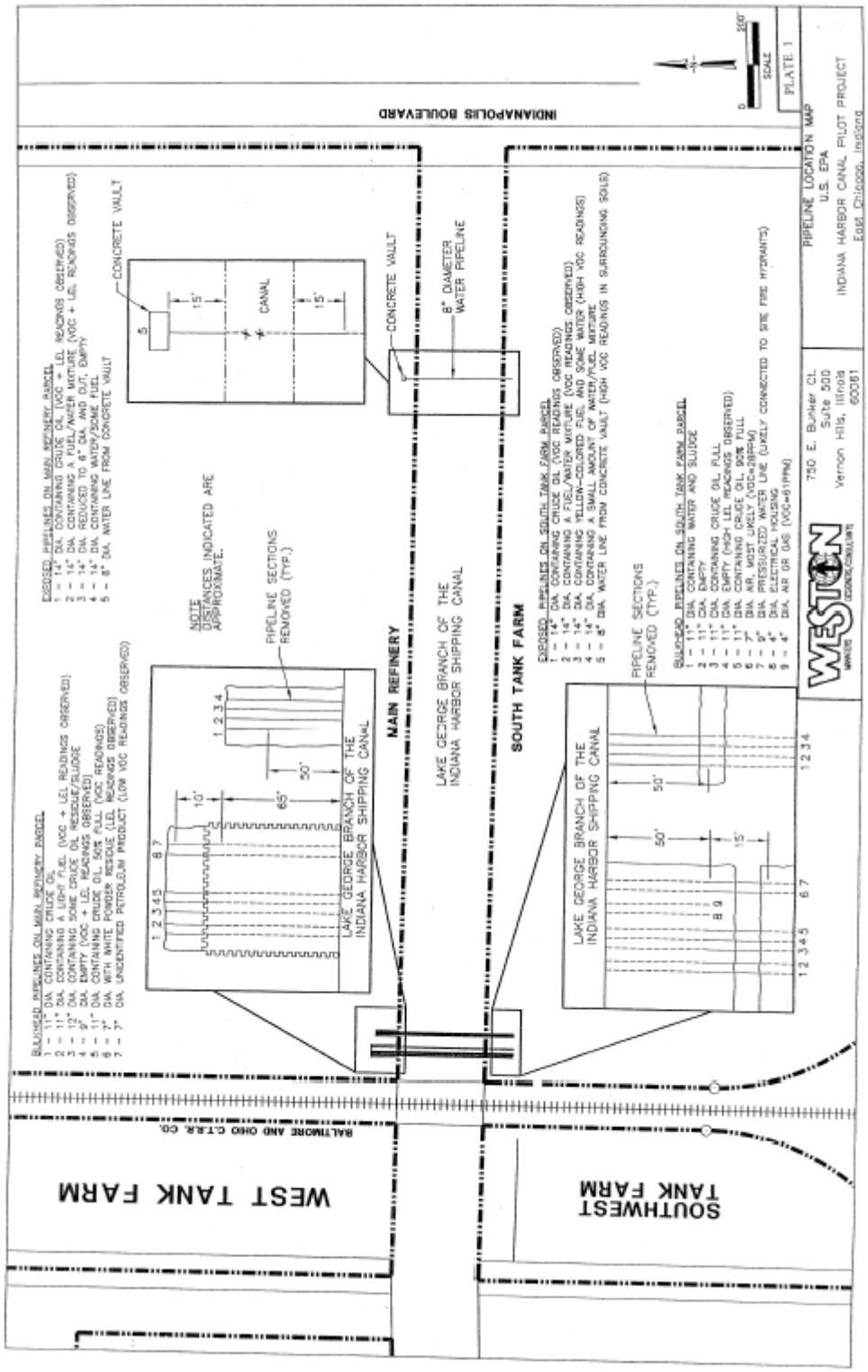

Plate 1: Map of Existing Pipelines

From: Wethington, David M LRC
To: Stoltz, Stephen R LRP; Andre, Thomas LRP
Cc: Wilk-Kulczak, Cindy P LRC; Nguyen, Mike LRC; Semmler, Jay A LRC; Elahi, Asghar M LRC
Subject: FW: Oil Boom Conference Call 2/10/05
Date: Thursday, February 10, 2005 4:58:09 PM

Steve/Tom,

As a result of our conversations with IDEM this morning -- see below for all the particulars -- it has been decided (for now at least) that IDEM will be retaining responsibility of operating/maintaining the oil boom system during the South Cutoff Wall contract. Consequently, it appears as if we don't need to add a separate bid item or specification section for oil boom operation/maintenance.

Additionally, Paragraph 3.3.1 in 01355 will have to be revised. I will develop some brief language regarding the contractor's need to coordinate with the Corps/IDEM/etc, and will send Tom the revised paragraph tomorrow (Friday).

Thanks,
Dave

-----Original Message-----
From: Wethington, David M LRC
Sent: Thursday, February 10, 2005 3:44 PM
To: White, Bill G LRC; Wilk-Kulczak, Cindy P LRC; Ryan Groves (E-mail); Walt Hufford (E-mail); Rundzaitis, Arthur G LRC

Cc: Anderson, Douglas M LRC; Semmler, Jay A LRC; Wethington, David M LRC
Subject: Oil Boom Conference Call 2/10/05

All,

Thank you for taking the time to meet with me this morning to discuss the near- and long-term coordination efforts between the Corps of Engineers, IDEM, and ARCO, concerning the oil booms located in the Lake George Branch of the IHC, adjacent to the CDF site. I would like to summarize the key outcomes of this meeting, distinguishing between the short term (Obstruction Removal) and future (South Cutoff Wall) construction contracts.

Obstruction Removal Contract:

The Corps' contractor, Environmental Quality Management, Inc (EQ), will be mobilizing to the CDF site in early March 2005. Obstruction removal activities within the canal are scheduled to begin in early April 2005, and continue for 8-12 weeks. During this period, ARCO will continue to be responsible for the operation and maintenance of the oil boom systems, via their contractor, Arcadis. During EQ's obstruction removal activities, it may be necessary to temporarily move (or remove) one, or more, of the oil booms extending across the canal. This situation would occur if the boundaries of EQ's in-canal operations (including, but not limited to, the cofferdam, work platform, and turbidity curtain) encroached the usual operating realm of the ARCO oil booms. In the interest of attaining simple resolution to this potential issue, along with continuing to maintain positive working relationships among the Corps, EQ, Arcadis/ARCO, and IDEM, a coordination meeting will be held at the CDF project site in early- to mid-March between all necessary parties. The purpose of this meeting will be to establish chains of

communication and points of contact in order to coordinate the logistics of oil boom movement during obstruction removal operations. This meeting will be organized by the Corps District/Field Offices (Wethington, Rundzaitis).

South Cutoff Wall:

Although it is likely that execution of this product is a couple of years upcoming, specifications for construction are currently nearing the 100% stage. To this effect, the Corps is pursuing resolution of similar logistical/coordination issues concerning the canal oil booms. In this time frame, it is anticipated that the Consent Decree between ARCO and IDEM will have been signed, and thus the operation and maintenance of the oil booms will be the responsibility of IDEM. During the South Cutoff Wall contract, the Corps' contractor will be performing construction activities (i.e. driving sheetpile) along the entire length of the CDF project site, between Indianapolis Boulevard on the east, and the railroad bridge on the west. The intent of this construction is to seal off any further leakage of oil/free product from the CDF site. Similar to the Obstruction Removal contract, the Corps' contractor may choose to operate from a water-based platform, and will be required to contain all canal construction activities within the bounds of a turbidity curtain. Consequently, coordination will again need to take place between the Corps' contractor, and IDEM in order to facilitate construction while maintaining acceptable operations of the oil boom system. To this effect, IDEM agreed to retain responsibility of oil boom operation and maintenance during this contract, in coordination with Corps' contractor.

I hope I have provided an accurate summary of our conversation in regard to anticipated activities and responsibilities during these two contracts. Please feel free to contact me if you have any clarifications, questions, or concerns. Also, as I do not have the E-mail addresses of all parties involved (Arcadis), could you please forward this as you see appropriate.

Thank you again for your time and consideration of this matter.

Dave Wethington

Environmental Engineering
U.S. Army Corps of Engineers
Chicago District
Office: 312.846.5522
Fax: 312.353.2156
david.m.wethington@usace.army.mil

From: White, Bill G LRC
To: Rose, Shannon R LRC
Cc: Buczak, Kirston A LRC; Wilk-Kulczak, Cindy P LRC
Subject: RE: IDEM Documentation for Oil Boom Movement
Date: Wednesday, April 07, 2004 4:46:28 PM

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done - he will get it from the appropriate person.

-----Original Message-----

From: Rose, Shannon R LRC

Sent: Wednesday, April 07, 2004 3:45 PM

To: White, Bill G LRC; Buczak, Kirston A LRC

Cc: Wilk-Kulczak, Cindy P LRC; Henisey, Allison M LRC

Subject: IDEM Documentation for Oil Boom Movement

Hi Bill/Kirston,

I believe that it is important that we get some documentation from IDEM/Steve West regarding their approval of us moving the oil booms out of the way during obstruction removal construction and replacing when finished and I would like to send him an e-mail asking for such documentation and including in this documentation any requirements that they may have for this procedure so that we can include them in the specifications for the Contractor to comply with.

Do either of you object to me sending Steve West an e-mail asking for such documentation? If so, could you give me another suggestion on how to contend with this issue. We really want to make sure that we are covered on this.

Let me know what you think,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers-Chicago District
111 N. Canal, Suite 600
Chicago, IL 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2156

From:	Rose, Shannon R LRC
To:	White, Bill G LRC
Cc:	Rose, Shannon R LRC
Subject:	Letter from ITEM Re: Oil Boom
Date:	Thursday, April 22, 2004 9:54:24 AM

Bill,

Have you received the letter from IDEM regarding who will take responsibility for moving the oil booms? Mike will need the information contained in the letter to finish off the specifications and I would like to make a copy to scan and put in Projectwise for regulatory documentation. So, as soon as you receive it could you let me know.

-Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers-Chicago District
111 N. Canal, Suite 600
Chicago, IL 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2156

From:	Wethington, David M LRC
To:	Dave Petrovski (E-mail)
Cc:	Henisey, Allison M LRC; White, Bill G LRC; Wilk-Kulczak, Cindy P LRC; Semmler, Jay A LRC; Rose, Shannon R LRC
Subject:	Responses to EPA Comments
Date:	Friday, March 05, 2004 4:23:07 PM

Dave,

Just wanted to provide a "formal" response for EPA comments regarding the 50% submittal of the Obstruction Removal Plans and Specs. Thank you for coordinating this effort and providing us with valuable insight.

Comment response to: TSCA, Jean Greensley

1) We (the Corps) characterized the sediment last year, and none of it contained PCB concentrations approaching 50 ppm. It will be the responsibility of the contractor to further characterize the sediment once it is removed from the Canal, and will specify that it shall be disposed of in a manner appropriate to regulatory requirements.

Comment response to: Air Division, Motira Caudill

1) The specifications have been modified to include a Quality Assurance Plan (QAP) as part of the contractor's Air Quality Monitoring Plan submittal. This QAP solicits the Contractor's outline of the sampling and analytical QA/QC; such as use of blanks, sample holding times, sample preservation, calibration of equipment, attainment of reporting limits, etc. This document will be reviewed by the Corps prior to acceptance.

2) Mark Fisher, USACE HTRW-CX in Omaha performed an Independent Technical Review of this section. Initially, he made a similar comment regarding the applicability of an Air Pathways Analysis (APA) (i.e. risk analysis), however due to the tight schedule and low probable impact of this project, we agreed that adopting action levels from a similar project would suffice. In this case, since the volume of dredged material is fairly small (approx 1000 m^3) and the project duration is short (less than 3 months), the action levels have been adopted from a formal risk analysis performed by US Steel. A more formal site-specific risk analysis on the CDF site prior to the actual dredging operation would preclude any "precedent" set by these action levels.

3) The monitoring station (a single hi-vol and VOC canister) would be placed adjacent to the dredging operation, as close as possible, without hindering contractor work. Since it would be a fairly cumbersome (large) setup, it would not be moved based upon wind direction. It is likely that the air monitoring station would be set up on a trailer or skids, therefore the contractor could move it as work progressed down the canal, however to move it on a daily basis would prove troublesome. Chances are that over the dredge period (estimated to be about three weeks) at some time the prevalent wind direction over a 24 hour sample would be toward the sampling station. The station will be placed to the east of the dredging operation, in hopes that the "prevalent" wind direction from the west will increase chances of monitoring contaminant dispersion. Additionally, the Ambient Air Monitoring Program stations at the South site (across the canal from the work area) and the High School sites will continue to monitor on the regular 6-day schedule. Again, it is expected that at least a few of those samples will be taken when excavation of sediments from the river is ongoing.

Comment response to: Water Division, Dave Schlenberg

1) The clearing and grubbing areas will be further defined in the 100% submittal.

Thank you again for your comments. If you have any further questions or concerns, please do not hesitate to contact me.

Dave Wethington

Environmental Engineering
U.S. Army Corps of Engineers
Chicago District
Office: 312.846.5522
Fax: 312.353.2156
david.m.wethington@usace.army.mil

From: Henisey, Allison M LRC
To: Wethington, David M LRC; Nguyen, Mike LRC; Semmler, Jay A LRC; Rose, Shannon R LRC
Cc: Wilk-Kulczak, Cindy P LRC
Subject: FW: Indiana Harbor, 50% Obstructions Removal Report
Date: Thursday, February 19, 2004 10:18:18 AM

-----Original Message-----
From: Petrovski.David@epamail.epa.gov
[mailto:Petrovski.David@epamail.epa.gov]
Sent: Tuesday, February 17, 2004 2:24 PM
To: Henisey, Allison M LRC
Subject: Fw: Indiana Harbor, 50% Obstructions Removal Report

Allison, Just to make sure you obtained this.

----- Forwarded by David Petrovski/R5/USEPA/US on 02/17/04 02:22 PM

David Petrovski
02/17/04 02:20 PM

To: Al Hanke/R4/USEPA/US@EPA, Allison M LRC" <Allison.M.Henisey@lrc02.usace.army.mil>
cc: "White, Bill G LRC" <Bill.G.White@lrc02.usace.army.mil>Semmler, Jay A LRC" <Jay.A.Semmler@lrc02.usace.army.mil, David.M.Wethington@lrc02.usace.army.mil, Jean Greensley/R5/USEPA/US, Motria Caudill/R5/USEPA/US, David Schulenberg/R5/USEPA/US, Hak Cho/R5/USEPA/US, Jose Cisneros/R5/USEPA/US/
Subject: Re: Indiana Harbor, 50% Obstructions Removal Report(Document link: David Petrovski)

Allison,

Per your request, the 50 % Obstruction Removal Report (dated January 2004) has been reviewed. The comments of Jean Greensley of the TSCA Program, Dave Schulenberg of the Water Division, and Motria Caudill of the Air Division are provided below.

If you have any questions or comments, please contact me by e-mail or phone (312-886-0997) at your earliest convenience

Dave Petrovski

TSCA, Jean Greensley

Dave ---

Any free phase oil and/or sediment that contains regulated levels of PCBs would have to be handled in accordance with the PCB disposal regulations. Any questions, let me know.

--Jean

AIR Division, Motria Caudill

Hi Dave -

Just a few comments on the obstruction removal plan:

EPA recommends that any air monitoring project should have a Quality Assurance Project Plan (QAPP). The Corps' specifications require that the contractor develop an Air Quality Monitoring Plan. This doesn't appear to be the same thing as a QAPP.

Air Monitoring Section can't comment on whether the action levels are appropriate. If these levels differ from the overally project action levels, then please have a risk assessor review.

The location of the air sampling equipment is not fully explained. The document says it "shall be located in areas most likely to be impacted by air emissions" due to site acitivities. How will the contractor determine this? Will wind direction be considered and monitors always be downwind of activities? Will the samplers be placed in between the construction site and local residents?

That's about it. We should probably look at the QAPP once it is developed.

-Motria

Water Division, Dave Schlenberg

Dave:

I have reviewed the report have no comment. The report contains standard specs, under S 02231 for clearing and grubbing. These are acceptable. My only comment is on the attached spec sheets. I did not find any correlation that identified the location of clearing and grubbing on the spec sheets that correspond to S 02231. It would be helpful to identify these areas on the spec sheets.

You can pick up the documents. I am here today.

Dave S.

David W. Schulenberg
Senior Enforcement Officer
U.S. EPA, Region 5
Telephone: (312) 886-6680

Fax: (312) 886-0168

From: Cieniawski.Scott@epamail.epa.gov
To: Rose, Shannon R LRC
Subject: Re: Silt Curtain Question
Date: Thursday, October 16, 2003 6:42:40 PM

Shannon:

I think 20 feet of water depth is more accurate than 12 feet, but otherwise I'm pretty much in agreement with your conclusions on silt curtains. Not only are the curtains less effective, but they are much more costly to install and maintain during a dredging project where current is high or water depth in deep. The same is probably true with bubble gates, which are another control technology.

It's probably more cost-effective to focus on reducing resuspension via dredging technology and procedures, along with control of surface oil produced.

Scott

"Rose, Shannon R LRC"
<Shannon.R.Rose@lrc02.usac
e.army.mil> To: Scott Cieniawski/R5/USEPA/US@EPA
cc:
10/15/2003 09:36 AM cc:
bcc:
Fax to:
Subject: Silt Curtain Question

Hi Scott,

Just a quick question. I have been doing some research on remediation projects and I have seen information on silt curtains suggesting that they are ineffective when the water depth is greater then 12 feet and when the water flow is greater then 1 ft/sec. What are your thoughts regarding the use of silt curtains in those conditions?

Thanks in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers

111 North Canal Street, 6th Floor
Chicago, Illinois 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2141
shannon.r.rose@usace.army.mil

From: MARTY MAUPIN
To: Rose, Shannon R
Subject: RE: IHC/Obstruction Removal 401 Application
Date: Monday, April 12, 2004 10:14:47 AM

Received the notification. you are good to go.

Marty Maupin
Office of Water Quality
Indiana Dept. of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

Phone: 317/233-2471
Fax: 317/232-8406
E-Mail: mmaupin@dem.state.in.us

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 04/12/04 08:46AM >>>
Marty-

I have faxed the Notification Form to the number you suggested. Let me know when you get it.

Thanks for your help on this project.

-Shannon

-----Original Message-----
From: MARTY MAUPIN [mailto:MMAUPIN@dem.state.in.us]
Sent: Monday, April 12, 2004 8:15 AM
To: Rose, Shannon R
Subject: RE: IHC/Obstruction Removal 401 Application

It would probably be easier if you just fax me a copy to 317-232-8406. We get a lot of the notificaiton forms in and I usually don't look at the applicant's name just the work they are proposing. If you fax I can almost immediately e-mail you back to let you know we have it and everything is fine.

Marty

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 04/09/04 11:42AM >>>
Marty-

I sent via mail the Notification Form for the Obstruction Removal project (IHC) we talked about on 4/2. Have you received it yet? If you remember could you notify me when you have. If not, I will just try back next week.

Thanks,
Shannon

-----Original Message-----
From: MARTY MAUPIN [mailto:MMAUPIN@dem.state.in.us]
Sent: Friday, March 19, 2004 12:12 PM
To: Rose, Shannon R
Subject: RE: IHC/Obstruction Removal 401 Application

Rose,

According to our records we did receive and it did receive a project number. I am at a loss as to what happened to it. If it is here I should be able to track it down today. Sorry for the problems. Thanks for the electronic version and please go ahead and put another one in the mail.

Thanks and Sorry,

Marty

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 03/19/04 01:03PM >>>
Marty-

Attached is the 401 application and 404(b)(1) contaminant determination report. I will send a hard copy by mail as well.

I will check back in a week to see if you got the one by mail.

Thanks,
Shannon

-----Original Message-----
From: MARTY MAUPIN [mailto:MMAUPIN@dem.state.in.us]
Sent: Friday, March 19, 2004 11:51 AM
To: Rose, Shannon R
Subject: Re: IHC/Obstruction Removal 401 Application

No, I have not seen your application. Please send another copy through regular mail and one electroncially if you can. Do not overnight it.

Marty Maupin
Office of Water Quality
Indiana Dept. of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

Phone: 317/233-2471
Fax: 317/232-8406
E-Mail: mmaupin@dem.state.in.us

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 03/19/04 11:52AM >>>
Hi Marty,

I just wanted to make sure that you received our 401 application for the

obstruction removal project which was sent overnight to you on 2/26. In our schedule we have allotted 90 days for the application process, which puts it at around 5/27 for completion. Is this still a correct assumption?

Thanks in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers-Chicago District
111 N. Canal, Suite 600
Chicago, IL 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2156

From:	Ennis, John D LRC
To:	Rose, Shannon R LRC
Subject:	RE: Boring Locations
Date:	Thursday, February 05, 2004 2:47:28 PM
Attachments:	map.jpg

Shannon, Here is a jpg of the map.

JD Ennis
111 N. Canal St., Suite 600
Planning Branch
Chicago, Illinois 60606-7206
312-846-5582 Office
312-886-2891 Fax

Indiana Harbor and Canal
Boring Locations

Figure 4

From:	Rose, Shannon R LRC
To:	Nguyen, Mike LRC
Subject:	Construction Documentation Report
Date:	Wednesday, April 21, 2004 2:23:52 PM
Attachments:	DikeDocumentationRequirements.doc MemoforRecord.4.12.04.doc

---

Hi Mike-

I spoke to Steve West at IDEM today and asked whether or not a construction documentation report will be needed for the obstruction removal project and he said yes it will be needed. Doug Anderson made this comment in the BCOE review. But, because not all of the kinks have been worked out yet, I don't know if I will be able to add the specification language in by 5/5. It is possible but, right now I am trying to iron them out with the Phase I dike contract and I am running into some difficulties. So, I may be able to get the language in on time but, if I do not a construction documentation report will still have to be generated for the obstruction removal product. It is just that instead of the contractor compiling all the information we need we will have to do it ourselves. Although, I have not produced an outline for the obstruction removal project yet, it will be similar to the dike project and I have included it below. It may be helpful to review it so that you know what it will take to complete it. Most of the report will be comprised of submittals from the contractor but, in-house personnel will have to write the narrative of the product. See the outline for the dike for more detail. I have also attached meeting minutes from a meeting where we discussed the dike CDR, like who is doing what, etc. We can talk more later but, I wanted to give you a heads up.

Thanks,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers-Chicago District
111 N. Canal, Suite 600
Chicago, IL 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2156

Outline
Construction Documentation Report
Phase I Dike Construction
Indiana Harbor and Canal

I. All Plans and Diagrams, with all modifications/changes from the contract set highlighted, according to District CADD standards-*Contractor Submits*.

a. Electronic DGN Format (CD-ROM)
b. Hard copy (Five (5) hard copies)

II. Product Description (pdf format, on CD-ROM and five (5) hard copies)-*Civil Design, Environmental, Construction, and GeoTech Submits, with Civil Design the Lead for the Development of the CDR and Environmental the Lead for the Coordination of the CDR with regulatory agencies*.

a. Introduction
b. Purpose
c. Location
d. History
e. Design (including slope protection design)
    i. Assumptions
    ii. Analysis
    iii. Decisions
f. Construction
    i. Special Contract Construction Requirements
    ii. Important Construction Activities and Modifications
    iii. Problems Encountered and Methods to Overcome Problems
g. Comparison of information obtained during design stages with that obtained during construction

III. Field and Laboratory Test Data, including original test results, QA documentation for the results, and any retests needed because of failures, and documentation that any failures were corrected. (pdf format, on CD-ROM and five (5) hard copies)- *Contractor Submits*.

a. Material (Properties, Sources, Usage)
    i. Clay Liner Borrow Source Assessment Report
        1. Classification Test Results-lab results
        2. Moisture-density (Compaction) Test Results-field documentation
        3. Hydraulic Conductivity Test Results-field documentation and lab results
        4. Atterberg Limit Test Results-lab results

    ii. Structural Fill Borrow Source Assessment Report

1. Moisture-density (Compaction) Test Results-field documentation
2. Atterberg Limit Test Results-lab results
3. Soil Classification Test Results-lab results

iii. Assessment Tests
iv. Moisture Content and Density Tests of In-Place Clay
v. Hydraulic Conductivity Tests of In-Place Clay
vi. Sampling Plan for Earth Fill Borrow Sites-if noncommercial borrow source used.
vii. Chemical Analytical Test Results for Earth Fill Borrow Sites-if noncommercial borrow source used
viii. Final Report for Earth Fill Borrow Sites-if noncommercial borrow source used

b. Placement
   i. Phasing
   ii. Placement Methods

IV. Construction Quality Assurance Plan (CQA)

a. Construction Quality Control Plan (CQC)-(pdf format, on CD-ROM and five (5) hard copies)- *Contractor Submits*.
   i. Draft CQC- not included in CDR, just given to agencies to review.
   ii. Final CQC- included in CDR
   iii. Certification

b. Supporting Documentation
   i. Inspections Daily Reports, which will need be called out as a submittal in the specs. (Stationing, Offset, QC checks-specifically for foundation preparation, embankment and backfill operations.)(pdf format, on CD-ROM)-*Contractor Submits*.
   ii. QA checks- *Construction Submits*.

V. Air Monitoring Summary- (pdf format, on CD-ROM and five (5) hard copies)- *Contractor Submits*.

Memorandum for Record April 15, 2004

CELRC TS-HE (S. Rose)

Re: Construction Documentation Report for Phase I Dike Construction.

1. On April 12, 2004, a meeting was held at 1:00 p.m.
2. The Agenda to this meeting is attached.
3. Members from USACE-Chicago District. The attendees are as follows:

    a. Chicago District
        i. Shannon Rose
        ii. Elaine Taylor
        iii. Cindy Wilk-Kulczak
        iv. Kirston Buczak
        v. Doug Anderson, via phone

4. Agenda Item I: The proposed outline for the Dike Construction Documentation Report (CDR), was reviewed and the following changes will be made:
    a. Under III b., height, slopes, location will be deleted because they are included on the as-builts.
    b. Under III b., slope protection design was deleted because it is provided by TS-DG.
    c. Under IV b., supporting documentation will only be submitted on CD-ROM, no hard copies.
    d. Under IV b., QA checks will be included in supporting documentation.
    e. Note: **In the final specs, we will need to require inspection daily reports as a submittal if that is what the regulatory agencies want to see.**

5. Agenda Item II: The participants in the meeting decided that since the product description will require more knowledge of project history and design assumptions, that in-house personnel should be responsible for the narrative. The Contractor will only be responsible for the compilation of the documents, which they must already submit as submittals, for the completion of the CDR. The product description will be a combined effort on the behalf of Civil Design, Environmental, Geo-Tech, and Construction. It was the belief of many of the participants that Civil Design should be the lead based on their intimate familiarity with the design of the constructed product. Environmental will assist with the coordination with regulatory agencies.

6. Agenda Item III: All participants agreed that the CDR could be written into specification 01100, rather then a separate specification. Elaine will put a strawman in 01100 and Environmental will take ownership of that specific section of 01100 and expand on the description.

7. Agenda Item IV: All participants agreed that that the CDR will be treated exactly like as-builts. Environmental has agreed to come up with the cost to deduct.

8. Agenda Item V: All participants agreed that the CDR can be discussed at the coordination meeting. Specific organization requirements will be delineated in the specs regarding the submittal of the compiled documents.

9. Action Items:
    a. **Shannon**- To revise the outline for the dike CDR.
    b. **Shannon**- To send out an e-mail to entire team regarding what products will need a CDR, along with the dike outline.
    c. **Shannon**- To send the dike outline after revision, to EPA and IDEM for approval.
    d. **Shannon**- To provide an estimate for compilation efforts.
    e. **Elaine-** To set up a strawman in 01100 .
    f. **Shannon**- To expand the description in 01100 to fulfill requirements of CDR.

From: STEVE WEST
To: Rose, Shannon R
Subject: RE: Obstruction removal
Date: Wednesday, May 05, 2004 2:11:30 PM

Shannon,
I reviewed the P&S, and we don't have any comments. I'll get you a letter in the mail tomorrow.
Steve

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 05/05/04 11:57 >>>
Great, looking forward to seeing them.

-----Original Message-----
From: STEVE WEST [mailto:SWEST@dem.state.in.us]
Sent: Monday, May 03, 2004 2:25 PM
To: Rose, Shannon R
Subject: RE: Obstruction removal

Shannon,

I was able to download it. Comments will be to you by COB 5/5/04.

Steve

>>> "Rose, Shannon R LRC" <Shannon.R.Rose@lrc02.usace.army.mil> 04/28/04 2:06 >>>

Steve-

Let me know if this file is too big for you to download.

-Shannon

-----Original Message-----
From: Nguyen, Mike LRC
Sent: Wednesday, April 28, 2004 2:05 PM
To: Rose, Shannon R LRC; 'swest@dem.state.in.us'
Subject: RE: Obstruction removal

Steve,

Here is a .pdf file of the Plans for the 100% Obstruction Removal.

<< File: Plans.zip >>
Mike Nguyen

-----Original Message-----
From: Rose, Shannon R LRC
Sent: Wednesday, April 28, 2004 12:29 PM
To: 'swest@dem.state.in.us'
Cc: Rose, Shannon R LRC; Nguyen, Mike LRC
Subject: FW: Obstruction removal

Steve,

Here is a pdf file of the specifications for the 100% obstruction removal product. I will have an electronic file of the plans sent shortly.

Thank you for taking the time to review it before our deadline. I really appreciate it. I owe you. :-)

-Shannon

-----Original Message-----
From: Taylor, Elaine R LRC
Sent: Wednesday, April 28, 2004 12:20 PM
To: Rose, Shannon R LRC
Cc: Taylor, Elaine R LRC
Subject: Obstruction removal

Shannon,
Here's the pdf file. Tell Steve I said hi.
Elaine
<< File: IHC obs removal.pdf >>

From:	Taylor, Elaine R LRC
To:	Rose, Shannon R LRC
Cc:	Taylor, Elaine R LRC
Subject:	Obstruction removal
Date:	Wednesday, April 28, 2004 1:20:26 PM
Attachments:	IHC obs removal.pdf

Shannon,

Here's the pdf file. Tell Steve I said hi.

Elaine

SOLICITATION NO: W912P6-04-R-xxxx

US Army Corps of Engineers®

CHICAGO DISTRICT

LEADERS IN CUSTOMER CARE

EAST CHICAGO, INDIANA
IHC OBSTRUCTION REMOVAL

CONSTRUCTION SOLICITATION AND SPECIFICATIONS

100% BCOE/ITR REVIEW SET
MARCH 2004

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* Some CT sections have blanks where they are waiting for responses
** NOT INCLUDED IN REVIEW PACKAGE

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SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. W912P6-04-R-0005	2. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED *(RFP)*	3. DATE ISSUED 12-Apr-2004	PAGE OF PAGES 1 OF 60

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W81G66-4068-2087	6. PROJECT NO.

7. ISSUED BY CODE W912P6	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE
U. S. ARMY ENGINEER DISTRICT, CHICAGO 111 CANAL STREET CHICAGO IL 60606	**See Item 7**
TEL:312.846.5371 FAX:	TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME DAVID M DILKS	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)* 312.846.5373

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

Project Title: East Chicago, Indiana, IHC Obstruction Removal

Small Business Size Standards: The North American Industry Classification System (NAICS) Code for this Project is 237990. The size standard is $28.5 Million.

This Project is UNRESTRICTED to Business Size.

General Decision Number IN030001 is applicable to this project.

The estimated magnitude of construction for this project is between $1,000,000 and $5,000,000.

BIDS RECEIVED BY FACSIMILE OR TELETYPE WILL NOT BE CONSIDERED.

DRAFT

11. The Contractor shall begin performance within 10 calendar days and complete it within 140 calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* Section 00800 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by _____ *(hour)* local time _____ *(date).* If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [X] is, [ ] is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 120 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER ***(Must be fully completed by offeror)***

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*		15. TELEPHONE NO. *(Include area code)*
		16. REMITTANCE ADDRESS *(Include only if different than Item 14)* **See Item 14**
CODE	FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*	20B. SIGNATURE	20C. OFFER DATE

AWARD ***(To be completed by Government)***

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	**ITEM**	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)
26. ADMINISTERED BY	CODE	27. PAYMENT WILL BE MADE BY: CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _ _ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*		31A. NAME OF CONTRACTING OFFICER *(Type or print)* TEL: EMAIL:
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY 31C. AWARD DATE

DRAFT

BID SCHEDULE

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT MEASURE	UNIT PRICE	AMOUNT
BASE BID					
0001	MOBILIZATION AND DEMOBILIZATION	1	LS		$_____
0002	TEMPORARY FIELD OFFICE, PROJECT SIGNS AND FENCING	1	LS		$_____
0003	CLEARING AND GRUBBING	10.6	AC	$_____	$_____
0004	TURBIDITY CURTAIN SYSTEM	1	LS		$_____
0005	SHORING SYSTEM	3	EA	$_____	$_____
0006	CUTTING & REMOVING AND CAPPING PIPES IN CANAL				
0006AA	14 INCHES DIA PIPE	4	EA	$_____	$_____
0006AB	12 INCHES DIA PIPE	1	EA	$_____	$_____
0006AC	11 INCHES DIA PIPE	3	EA	$_____	$_____
0006AD	9 INCHES DIA PIPE	1	EA	$_____	$_____
0006AE	8 INCHES DIA PIPE	1	EA	$_____	$_____
0006AF	7 INCHES DIA PIPE	2	EA	$_____	$_____
0007	DEMOLITION OF 24″ DIA BOLLARD (CONCRETE POSTS)	31	EA	$_____	$_____
0008	DEMOLITION OF 24″ DIA CONCRETE PADS	4	EA	$_____	$_____
0009	DEMOLITION OF GATE VALVES	3	EA	$_____	$_____
0010	DEMOLITION OF WATER VALVES	2	EA	$_____	$_____
0011	DEMOLITION OF VALVES	2	EA	$_____	$_____
0012	DEMOLITION OF PIPES (SIZE VARIES)	5	EA	$_____	$_____
0013	DEMOLITION OF STEEL AND CONCRETE STRUCTURES	8	EA	$_____	$_____
0014	DEMOLITION OF HYDRANTS	4	EA	$_____	$_____
0015	DEMOLITION OF MANHOLE	1	EA	$_____	$_____
0016	REMOVE EXISTING FENDERS AND WALL ACCESSORIES	2046	LF	$_____	$_____
0017	VEHICLE AND EQUIPMENT DECONTAMINATION	1	LS		$_____
0018	CONSTRUCTION EMISSIONS AIR MONITORING	1	LS		$_____

BID SCHEDULE

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT MEASURE	UNIT PRICE	AMOUNT
0019	PRE-CONSTRUCTION SURVEY	1	LS		$_____
0020	PERFORMANCE AND PAYMENT BONDS	1	LS		$_____

TOTAL: Line items 0001 through 0020 $_____

Section 00100 - Bidding Schedule/Instructions to Bidders

SUBCONTRACTING GOALS

The subcontracting goals for the Chicago district are (1) at least 57.2% of a contractor's intended subcontract amount be placed with small businesses (SB); (2) at least 10% of a contractor's intended subcontract amount be placed with small disadvantaged businesses (SDB); (3) at least 10% of a contractor's intended subcontract amount be placed with women-owned SB (WOSB); (4) at least 3% of a contractor's intended subcontract amount be placed with service-disabled veteran-owned SB; and (5) at least 3% of a contractor's intended subcontract amount be placed with HUBZone SB

CLAUSES INCORPORATED BY REFERENCE

52.204-6	Data Universal Numbering System (DUNS) Number	OCT 2003
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.215-1	Instructions to Offerors--Competitive Acquisition	JAN 2004

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm-Fixed Price Construction contract resulting from this solicitation.

(End of clause)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
19.6%	6.90%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations

required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is East Chicago, Indiana, Lake County.

(End of provision)

52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (MAY 2002)

(a) Definitions. Construction material, domestic construction material, and foreign construction material, as used in this provision, are defined in the clause of this solicitation entitled “Buy American Act --Construction Materials” (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers.

(1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Regina G. Blair, Attention, Contracting Office, 111 N. Canal Street, Suite 600, Chicago, Illinois, 60606.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:
Name:
Address:
Telephone:

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

http://farsite.hill.af.mil/

(End of provision)

SUBMISSION REQUIREMENTS AND INSTRUCTION

This Section will be filled in once the Evaluation Factors are finalized in the Source Selection Plan.

EVALUATION FACTORS FOR AWARD

This Section will be filled in once the Evaluation Factors are finalized in the Source Selection Plan.

SECTION 00200

INFORMATION AVAILABLE TO BIDDERS

PART 1 GENERAL

The material presented in this section is intended to provide the Contractor with a historical background of the site, along with a summary of the analytical results from recent sediment sampling events in the Lake George Branch just south of the ECI site. Although a number of sampling events have occurred at the ECI site, all hazards potentially present at the site may not have been characterized. The following paragraphs are a summary of information; the Contractor is encouraged to review the Additional Information Available Paragraph 1.6.

1.1 SITE HISTORY

1.1.1 Refinery Operation

The "ECI property" was the location of a petroleum products refinery from 1918 to 1981. Peak production was approximately 140,000 barrels per day. The project parcel, termed the main refinery, contained the principal production area and also included storage, a marine loading area, rail loading areas, insecticide manufacturing, truck docking facilities, and an American Petroleum Institute (API) separator. The refinery operations included the production of mineral spirits, propane, leaded and unleaded gasoline, fuel oil, kerosene, asphalt and asphalt products, liquefied petroleum gas, grease, lubricating oils, paraffin wax, phenols, and sulfur. Between 1940 and 1958, pyrethrum extract, consisting of dried heads of certain varieties of chrysanthemums, was filtered on site. The filtered extract was combined with kerosene, used an insecticide base, to produce an insecticide. The maximum annual production of insecticide base occurred in 1944 when 49,359 barrels were produced. This accounted for 0.26 percent of the total plant throughout.

1.1.2 After Plant Closed

Former owners of the project site include Sinclair from 1918 to 1968, Atlantic Richfield Company (ARCO) from 1968 to 1976, and Energy Cooperative, Incorporated (ECI) from 1976 to 1981. In 1981, ECI filed for bankruptcy, and in the late 1980s, all buildings and above ground structures were razed in response to a court order. Several inches of clean topsoil were graded to cover the site. In 1989, the City of East Chicago became the owner of the site as payment for back taxes owed by ECI. The site has open Resource Conservation and Recovery Act (RCRA) status because the court-approved closure of the facility was not comparable to a RCRA approved closure. In addition, the site requires RCRA corrective action, due to the contamination of soil and groundwater on site from past industrial activities.

1.1.3 Hydrocarbon Layer

A hydrocarbon layer has been intermittently encountered during groundwater monitoring activities since the beginning of the site investigations in 1991. In 1991, oil was discovered to be seeping into the canal. An oil recovery system was installed along the north bank of the canal (the south

edge of the main refinery parcel), and has been in operation since August 1992. The system consists of several recovery wells, an oil/water separator system, a product storage area, and an infiltration trench for the water. Geraghty & Miller, Inc. was retained by ARCO to operate and maintain the oil recovery system and to gage the existing wells on a quarterly basis. In addition to the oil recovery system, an oil boom is maintained in the canal to control any continued seepage. Since the tentative merger of ARCO and BP Amoco, the oil recovery system has been maintained by ARCO, referred to as BP Amoco/ARCO in this contract, or their consultant.

1.2 SEDIMENT INVESTIGATIONS

1.2.1 July 18, 2002 INVESTIGATION - Physical Characterization for Construction of Waterloo Barrier

USACE, through a Contractor, obtained sediment borings just south of the existing sheetpile wall on July 18, 2002. The primary goal of this investigation was to determine the physical characteristics of the clay soil below the bottom of the canal. This information will be used in the design of the proposed Waterloo Barrier. The secondary goal of this investigation was to chemically analyze the PCB content of the loose materials encountered between the bottom of the canal and the top of the clay stratum. This information was used to characterize the materials for the Obstruction Removal project and Waterloo Barrier construction.

Results from the primary objective are as follows: The canal bottom consists of a 2 to 5 feet layer of black organic silt overlying gray silt and silty sand deposits. The organic silt deposits were loose, while the silty sand was medium dense to dense. A clay layer in the canal beginning at 548 feet mean sea level (MSL) was identified. The clay till consisted primarily of gray silty clay, with trace fractions of coarse to fine sand, low to high plasticity, and was moist to wet.

In this sampling event, five (5) composite samples were also collected from the upper two (2) feet of sediments encountered and were analyzed for polychlorinated biphenyls (PCBs). Analysis was performed in accordance with USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. The analytical data was compared to the Indiana Department of Environmental Management (IDEM) Default Closure Limit for PCB compounds. The Default Closure Limit is intended to be a gauge as to what level of contamination IDEM would deem acceptable for soils left in-place. In summary, the chemical analytical results identified that the samples were contaminated with PCB compounds. At two (2) locations (SED-2-02 and SED-3-02), the detected concentrations of PCB compounds were greater than the IDEM Default Closure Limit, indicating that these soils may have to meet special disposal requirements.

Based on the sample results, it was not anticipated that future values for PCBs in this area would exceed 50 parts per million (ppm). Also, from historical sampling in other areas of the canal, it was not anticipated that the sediment would exceed TCLP concentrations.

The sediment results for the July, 2002 investigation are shown in Attachment 00200-1 at the end of this section. The sediment physical and chemistry raw data from the laboratory is available in the USACE-Chicago District, Geotechnical Engineering project files, if needed.

1.2.2 September 17, 2003 INVESTIGATION - Chemical Characterization for Disposal Requirements

During 15-17 of September, USACE's Contractor, conducted a sediment sampling and analysis event along the existing sheet pile wall. The primary objective of the sediment sampling was to obtain chemical data for the sediments to be dredged from the Lake George Branch of the canal. This data will be used by USACE to characterize the sediment removed during obstruction removal in conjunction with determination of disposal requirements. Five (5) sediment borings were advanced at the site from September 15 to 17, 2003. The borings were performed along an approximate 1,000 foot section of the north side of the canal and were spaced at 200 to 400 foot internals. The depths of the borings increased toward the west, as the elevation of the sediment surface increased.

The bottom layer in all of the sediment borings was a silty clay that appears to be representative of native soils at the site. The top of the silty clay layer ranged from approximately 553 to 563 feet MSL in the test borings. Overlying the silty clay in borings IHC03-C1, IHC03-C2, IHC03-C3 and IHC03-C5 was a sand layer that grades into silty sand in some areas. The sand layer was thickest in the western most boring (IHC03-C1), and gradually decreased in thickness until it was not encountered in boring IHC03-C4. A five (5) foot sand layer was then encountered in the next boring to the east (ICH03-C5). A two (2) foot silty gravel layer was encountered at the sediment surface in boring IHC03-C1 and a one (1) foot sandy gravel layer was encountered at the top of IHC03-C3.

Five (5) sediment samples and one (1) duplicate were submitted for laboratory analysis for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) (EPA Method 846), TCLP semi-volatile organic compounds (SVOCs) (EPA Method 846), TCLP Resource Conservation and Recovery Act (RCRA) 8 metals (EPA Method 846), TCLP pesticides/herbicides (EPA Method 846), closecup flashpoint (EPA Method 1010), reactive sulfides (EPA Method 7.3.4), and total PCBs (EPA Method 8082).

Sediment analytical results were compared to USEPA TCLP regulatory levels. None of the compounds detected exceeded regulatory levels. Ignitability and sulfide reactivity were compared to USEPA regulatory levels and no exceedances were noted. Total PCB levels were compared to the Toxic Substances Control Act (TSCA) regulatory level and there were no exceedances. None of the detections exceed EPA TCLP regulatory levels.

The sediment results for the September, 2003 investigation are shown in Attachment 00200-2 at the end of this section. The sediment chemistry raw data from the laboratory is available in the USACE-Chicago District, Environmental Engineering project files, if needed.

1.2.3 PCB Investigation Comparison

The PCB concentrations from the July 18, 2002 sampling event ranged from 1.055 to 10.74 mg/kg. When compared to the IDEM Default Closure Limit, two (2) samples exceeded the limit for PCBs. The PCB concentrations from the September 17, 2003 sampling event ranged from 0.020 to 0.640 mg/kg. Total PCB levels compared to the TSCA regulatory level, revealed no exceedences.

There are two (2) potential reasons why the concentrations from these two (2) sampling events differed. One factor that could have made a difference in the concentrations seen in the analytical data could be, that in the July 18, 2002 sediment analytical results, some of the reporting limits

were elevated due to matrix interferences. Also, the July 18, 2002 sampling event's primary purpose was physical characterization, rather then chemical characterization required for disposal requirements. On the other hand, the September 17, 2003 sampling was specifically directed towards disposal and chemical quality assurance inherent for this action.

1.2.4 Historic Sediment Characterization Data -- Information for Health and Safety Monitoring

A number of sediment characterizations have taken place at various locations within Indiana Harbor and Canal since the 1970's. The results of these investigations have been summarized in a sediment quality database, which can be found in Attachment 00200-3 at the end of this section. This database identifies the maximum concentration, average concentration, and total number of samples taken to date, on a per-analyte basis. It should be noted that this database does not comprise a list of all possible contaminants which may be encountered.

This database is provided to the contractor as an indication of potential contaminants which have been found in the sediments of Indiana Harbor and Canal, and their respective concentrations. The contractor may utilize this resource in the development of the Exposure Monitoring/Air Sampling Program, outlined in SECTION 01525 SAFETY, HEALTH, AND EMERGENCY RESPONSE.

1.3 UTILITY AND PIPELINE SURVEY INVESTIGATIONS

1.3.1 In November 1997, Smith Engineering Consultants, Inc. was contracted by the U.S. Army Corps of Engineers Chicago District to review pre- and post-site conditions, existing reports, as-built drawings, miscellaneous design and engineering drawings, utility maps, surveys, and various other maps and reports that Chicago District obtained from record archives of previous refinery owners. The reference drawings had a separate tag symbol and associated attributes for each utility and pipeline type. Smith Engineering then incorporated the miscellaneous and archived data into a series of digital utility and pipeline maps of pre- and post-site conditions. Due to inconsistencies, the tags on Smith Engineering's drawings contain only the information that was written on the existing drawings. The status of many lines is unknown and has not been field verified

1.3.2 The data from Smith Engineering's summary is represented on the project drawings. The drawings for the whole site are available to bidders upon request.

1.3.3 In May 2000, a Real Estate Mapping Survey and Record Search was performed by Smith Engineering Consultants, Inc., contracted by the U. S. Army Corps of Engineers Chicago District to review existing drawings, maps, and records to identify existing utility and other easements in and adjacent to the project site.

1.4 CONTROL SURVEY DATA AND MAPPING

Field reconnaissance was conducted, and many of the existing structures that contained Indiana West State Plane coordinates and local ECI coordinates or stationing were surveyed. The survey work conducted provided conversion factors for translation between the two coordinate systems. In December, 1997 two brass ACOE datum control marks (brass caps) provided by the Chicago District were installed north of the project site. These control marks were installed on the Cline Avenue (Hwy 912) bridges

located at the northwest and northeast corners from the project. Two existing control points established in October, 1988 were field located on the south end of the project at the Lake George Canal Indianapolis street bridge on the southeast corner and the rail road bridge on the southwest corner. These four marks were tied and closed to establish horizontal and vertical control for the project.

In April 1994, Aero-Metric Engineering, Inc. was contracted by the U.S. Army Corps of Engineers Chicago District to prepare aerial mapping, topographic and planimetric project mapping for the ECI site in Lake County, Indiana. Stereo aerial photography was performed to complete the mapping requirements. The October, 1988 ground controls were used and verified to compile the mapping.

1.5 AMBIENT AIR MONITORING PLAN

This document presents the Sampling and Analytical Plan (SAP) and Quality Assurance Project Plan (QAPP), combined as the Ambient Air Monitoring Plan, for air monitoring at the perimeter of the ECI site and East Chicago Central High School. The Ambient Air Monitoring Plan describes the sampling and analytical program and the systematic quality control process used to ensure that data collected in this program are reliable and accurate. This document can be found as Attachment 00200-4 at the end of this section.

This document serves as a model of a similar, approved, and preferred sampling and analytical plan for the Contractor's reference when developing the obstruction removal volatile emissions Air Quality Monitoring Plan, outlined in SECTION 01355 ENVIRONMENTAL PROTECTION.

1.6 ADDITIONAL INFORMATION AVAILABLE

The following information is available for review. Information may be reviewed by contacting the U.S. Army Corps of Engineers Chicago District at 111 North Canal Street, Chicago, Illinois 60606-7206.

a. The U.S. Army Corps of Engineers, Waterways Experiment Station (WES) was contracted by the Chicago District to perform a surface geophysical survey. The purpose of this survey was to attempt to locate pipeline, concrete foundations, and other buried structures that may remain in-place following demolition of the site. The work was conducted in August 1995 and documented in a report entitled "Geophysical Investigations at the Indiana Harbor CDF Site, East Chicago, Indiana", January 1996.

b. Real Estate Mapping Survey and Record Search, Smith Engineering Consultants, Inc., August 2000. The figures include survey results and some utility information.

c. Clean Water Act Section 404(b)(1) Contaminant Determination Report for Indiana Harbor and Canal, Obstruction Removal, for Waterloo Barrier Installation, East Chicago, Indiana, February 23, 2004.

PART 2 PRODUCTS - Not applicable

PART 3 EXECUTION - Not applicable

-- End of Section --

Attachment 00200-1
Summary of Soil Sample Chemical Analytical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	**SED-1-02**	**SED-2-02**	**SED-3-02**	**SED-4-02**	**SED-5-02**
PCBs (mg/kg)					
Aroclor 1016	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1221	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1232	0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1242	2.80	5.77	9.18	0.844	2.05
Aroclor 1248	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1254	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1260	1.21	1.10	1.56	0.211	0.546
Total PCBs	4.01	6.87	10.74	1.055	2.596

Attachment 00200-2
Detected Sample Results
Indiana Harbor and Canal, East Chicago, Indiana

	Compound*	Regulatory Levels	IHC03-C1	IHC03-C1-D	IHC03-C2	IHC03-C3	IHC03-C4	IHC03-C5
TCLP VOCs (µg/L)	Benzene	500	11	12	ND	20	ND	ND
PCBs (ug/kg)	Aroclor-1248	(a)	ND	80	640	140	370	180
PCBs (ug/kg)	Aroclor-1260	(a)	ND	ND	140	26	59	41
TCLP Metals (ug/L)	Arsenic	5,000	ND	ND	ND	ND	ND	13.9
TCLP Metals (ug/L)	Barium	100,000	469	314	920	715	738	288
TCLP Metals (ug/L)	Cadmium	1,000	2	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Chromium	5,000	16	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Lead	5,000	157	92.8	ND	208	ND	ND
TCLP Metals (ug/L)	Selenium	1,000	16.2	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Mercury	200	0.11	ND	ND	0.05	0.04	ND

Notes:
(a) = Total PCB Toxic Substances Control Act (TSCA) regulatory level is 50,000 ug/kg.
ND = Non-detect
D = Duplicate
* = All other results, including all results for SVOCs and pesticides/herbicides, were non-detect.

Summary of USACE Indiana Harbor Sediment Quality Database

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
4,4-DDD	Max of CONCEN			0.316		
	Average of CONCEN			0.103		
	Count of CONCEN			18		
4,4-DDE	Max of CONCEN			0.0563		
	Average of CONCEN			0.0382		
	Count of CONCEN			15		
ACENAPHTHENE	Max of CONCEN			55.0		
	Average of CONCEN			19.5		
	Count of CONCEN			28		
ACENAPHTHYLENE	Max of CONCEN			630		
	Average of CONCEN			37.8		
	Count of CONCEN			22		
ALDRIN	Max of CONCEN			0.0448		
	Average of CONCEN			0.0448		
	Count of CONCEN			1		
ALKALINITY	Max of CONCEN					216
	Average of CONCEN					117
	Count of CONCEN					12
ALUMINUM	Max of CONCEN			15000		1.19
	Average of CONCEN			8760		0.668
	Count of CONCEN			20		4
AMMONIA NITROGEN	Max of CONCEN			3900		31.1
	Average of CONCEN			682		3.89
	Count of CONCEN			96		14
ANTHRACENE	Max of CONCEN			310		
	Average of CONCEN			29.8		
	Count of CONCEN			29		
ANTIMONY	Max of CONCEN			42.4		
	Average of CONCEN			23.5		
	Count of CONCEN			18		
ARSENIC	Max of CONCEN	0.13		220	0.379	0.02
	Average of CONCEN	0.098		51.9	0.194	0.0145
	Count of CONCEN	5		108	7	9
BARIUM	Max of CONCEN	1.23		334	0.928	0.079
	Average of CONCEN	0.768		118	0.666	0.0314
	Count of CONCEN	5		52	17	12
BENZENE	Max of CONCEN			28	0.575	
	Average of CONCEN			6.65	0.114	
	Count of CONCEN			7	10	
BENZO(A)ANTHRACENE	Max of CONCEN			230		
	Average of CONCEN			39.6		
	Count of CONCEN			34		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
BENZO(A)PYRENE	Max of CONCEN			150		
	Average of CONCEN			22.5		
	Count of CONCEN			33		
BENZO(B) FLUORANTHENE	Max of CONCEN			120		
	Average of CONCEN			23.3		
	Count of CONCEN			33		
BENZO(G,H,I)PERYLENE	Max of CONCEN			34.6		
	Average of CONCEN			10.7		
	Count of CONCEN			25		
BENZO(K) FLUORANTHENE	Max of CONCEN			60		
	Average of CONCEN			10.6		
	Count of CONCEN			33		
BERYLLIUM	Max of CONCEN			5		
	Average of CONCEN			2.66		
	Count of CONCEN			11		
BOD	Max of CONCEN					53
	Average of CONCEN					15.1
	Count of CONCEN					11
BORON	Max of CONCEN			550		
	Average of CONCEN			358		
	Count of CONCEN			13		
CADMIUM	Max of CONCEN	0.019		93.7		
	Average of CONCEN	0.0134		15.1		
	Count of CONCEN	5		131		
CALCIUM	Max of CONCEN			88800		
	Average of CONCEN			39600		
	Count of CONCEN			20		
CHLORIDE	Max of CONCEN					572
	Average of CONCEN					102
	Count of CONCEN					12
CHROMIUM	Max of CONCEN	0.178		4470	1.08	0.034
	Average of CONCEN	0.121		610	0.297	0.0119
	Count of CONCEN	5		151	14	9
CHRYSENE	Max of CONCEN			400		
	Average of CONCEN			62.1		
	Count of CONCEN			34		
COBALT	Max of CONCEN			23		
	Average of CONCEN			12.8		
	Count of CONCEN			5		
COD	Max of CONCEN			760000		299
	Average of CONCEN			215000		61.4
	Count of CONCEN			76		14

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
COPPER	Max of CONCEN			850		0.048
	Average of CONCEN			200		0.0173
	Count of CONCEN			132		7
CYANIDE	Max of CONCEN			3		0.32
	Average of CONCEN			1.64		0.0834
	Count of CONCEN			9		13
D-BHC	Max of CONCEN			0.006		
	Average of CONCEN			0.00413		
	Count of CONCEN			2		
DIBENZO(A,H) ANTHRACENE	Max of CONCEN			16.2		
	Average of CONCEN			3.48		
	Count of CONCEN			18		
DIELDRIN	Max of CONCEN			0.0257		
	Average of CONCEN			0.0185		
	Count of CONCEN			16		
DISSOLVED SOLIDS	Max of CONCEN					1620
	Average of CONCEN					425
	Count of CONCEN					12
ENDOSULFAN II	Max of CONCEN			0.0403		
	Average of CONCEN			0.0375		
	Count of CONCEN			2		
ETHYLBENZENE	Max of CONCEN			3.4		
	Average of CONCEN			1.27		
	Count of CONCEN			8		
FINES (<200)	Max of CONCEN		99.6			
	Average of CONCEN		73.1			
	Count of CONCEN		30			
FLUORANTHENE	Max of CONCEN			650		
	Average of CONCEN			69.8		
	Count of CONCEN			34		
FLUORENE	Max of CONCEN			380		
	Average of CONCEN			40.1		
	Count of CONCEN			31		
FLUORIDE	Max of CONCEN					1.5
	Average of CONCEN					0.504
	Count of CONCEN					12
HEPTACHLOR EPOXIDE	Max of CONCEN			0.0122		
	Average of CONCEN			0.00934		
	Count of CONCEN			4		
INDENO(1,2,3-C,D)PYRENE	Max of CONCEN			34		
	Average of CONCEN			9.88		
	Count of CONCEN			19		

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
IRON	Max of CONCEN			332000		2.85
	Average of CONCEN			108000		1.15
	Count of CONCEN			157		14
LEAD	Max of CONCEN	0.54		8940	0.894	0.032
	Average of CONCEN	0.474		846	0.270	0.026
	Count of CONCEN	5		179	17	2
LINDANE	Max of CONCEN			0.007		
	Average of CONCEN			0.007		
	Count of CONCEN			1		
M,P-XYLENES	Max of CONCEN			60		
	Average of CONCEN			11.6		
	Count of CONCEN			9		
MAGNESIUM	Max of CONCEN			50000		16.5
	Average of CONCEN			15600		14.9
	Count of CONCEN			98		2
MANGANESE	Max of CONCEN			38200		0.203
	Average of CONCEN			2010		0.0813
	Count of CONCEN			164		13
MERCURY	Max of CONCEN	0.0003		3		0.0019
	Average of CONCEN	0.00025		1.06		0.000308
	Count of CONCEN	2		99		12
MOLYBDENUM	Max of CONCEN			66000		
	Average of CONCEN			46900		
	Count of CONCEN			7		
NAPHTHALENE	Max of CONCEN			5800		
	Average of CONCEN			1080		
	Count of CONCEN			7		
NICKEL	Max of CONCEN			394		0.008
	Average of CONCEN			84.6		0.008
	Count of CONCEN			166		1
NO3 NITROGEN	Max of CONCEN			71		
	Average of CONCEN			42.1		
	Count of CONCEN			7		
NO3/NO2 NITROGEN	Max of CONCEN					0.87
	Average of CONCEN					0.454
	Count of CONCEN					14
O-XYLENE	Max of CONCEN			17		
	Average of CONCEN			3.38		
	Count of CONCEN			10		
OIL & GREASE	Max of CONCEN			212000		100
	Average of CONCEN			42600		21.1
	Count of CONCEN			90		7

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
ORG NITROGEN	Max of CONCEN			8130		
	Average of CONCEN			4990		
	Count of CONCEN			7		
PHENANTHRENE	Max of CONCEN			1170		
	Average of CONCEN			192		
	Count of CONCEN			34		
PHENOL	Max of CONCEN			3800		0.014
	Average of CONCEN			107		0.008
	Count of CONCEN			36		13
POTASSIUM	Max of CONCEN			9980		
	Average of CONCEN			7530		
	Count of CONCEN			3		
PYRENE	Max of CONCEN			500		
	Average of CONCEN			91.0		
	Count of CONCEN			34		
SELENIUM	Max of CONCEN	0.002		6.9	0.06	0.015
	Average of CONCEN	0.00133		4.13	0.06	0.015
	Count of CONCEN	3		34	1	1
SILVER	Max of CONCEN	0.011		22		
	Average of CONCEN	0.0088		7.57		
	Count of CONCEN	5		7		
SODIUM	Max of CONCEN			2.5		
	Average of CONCEN			1.04		
	Count of CONCEN			5		
SULFATE	Max of CONCEN					188
	Average of CONCEN					74.7
	Count of CONCEN					12
SULFIDE	Max of CONCEN			2800		
	Average of CONCEN			1800		
	Count of CONCEN			7		
SUSPENDED SOLIDS	Max of CONCEN					166
	Average of CONCEN					37.2
	Count of CONCEN					12
TETRACHLOROETHENE	Max of CONCEN			0.533		
	Average of CONCEN			0.533		
	Count of CONCEN			1		
THALLIUM	Max of CONCEN			7.7		
	Average of CONCEN			4.2		
	Count of CONCEN			6		
TIN	Max of CONCEN			470		
	Average of CONCEN			280		
	Count of CONCEN			10		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
TITANIUM	Max of CONCEN			320		
	Average of CONCEN			221		
	Count of CONCEN			7		
TKN	Max of CONCEN			10800		43.7
	Average of CONCEN			2670		6.31
	Count of CONCEN			72		14
TOC	Max of CONCEN		14.5	93000		95
	Average of CONCEN		10.7	16500		15.5
	Count of CONCEN		18	48		14
TOLUENE	Max of CONCEN			55		
	Average of CONCEN			8.59		
	Count of CONCEN			9		
TOTAL CYANIDE	Max of CONCEN			24.1		
	Average of CONCEN			10.5		
	Count of CONCEN			18		
TOTAL PCB	Max of CONCEN			115		
	Average of CONCEN			15.7		
	Count of CONCEN			127		
TOTAL PHOSPHORUS	Max of CONCEN			9600		3.36
	Average of CONCEN			2410		0.391
	Count of CONCEN			81		13
TOTAL SOLIDS	Max of CONCEN		95.5			
	Average of CONCEN		54.7			
	Count of CONCEN		124			
TRPH	Max of CONCEN			119000		
	Average of CONCEN			72000		
	Count of CONCEN			18		
VANADIUM	Max of CONCEN			340		0.007
	Average of CONCEN			137		0.007
	Count of CONCEN			12		2
VOLATILE SOLIDS	Max of CONCEN		28.7	21.5		
	Average of CONCEN		11.3	21.5		
	Count of CONCEN		123	1		
ZINC	Max of CONCEN			10000		0.109
	Average of CONCEN			3230		0.0745
	Count of CONCEN			168		11

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SECTION 00320

GEOTECHNICAL DATA

PART 1 GENERAL

1.1 SUBSURFACE CONDITIONS

Subsurface exploratory borings have been obtained by the Government to determine the general character of the subsurface materials within the project area. Locations of the borings are shown on the Drawings, and the logs of those borings that fall within the area of this contract are included for the convenience of the Contractor. These borings are included in Appendix A at the end of this section. The Government assumes no responsibility for any interpretation or deductions made by the Contractor from the logs and data. While the borings are generally representative of subsurface conditions at their respective locations and for their respective vertical reaches, localized variations of characteristics of the subsurface materials should be anticipated. Groundwater elevations, shown on the boring logs, are those encountered at the time when the borings were taken, and will fluctuate due to factors such as rainfall, lake and/or canal stages. It is noted that groundwater and free product levels have been encountered in the site monitoring wells at depths of less than one (1) foot below the existing ground surface.

The Contractor is advised that significant amounts of debris could be encountered along the inspection trench/cutoff wall alignment. Conditions along the inspection trench/cutoff wall alignment will vary from conditions shown, and the contractor shall make all interpretations needed for determination of the means and methods to perform the inspection trench and to construct the soil-bentonite slurry trench cutoff wall. The types of obstructions and debris that may be encountered during excavation activities include, but are not limited to, the following:

a. Building/construction debris from razing of previous on-site facilities.
b. Refinery process pipelines, gas lines, and electric conduits.
c. Storm sewers, water lines, and sanitary sewers.
d. Underground storage tanks.
e. Concrete foundations and reinforced concrete slabs.
f. Abandoned dock wall steel sheet pile, H-pile, and/or timber vertical or batter piles.
g. Abandoned drainage, gated outfall, recovery, and settling basin structures.
h. Railroad tracks and railroad ties.

1.2 SITE SPECIFIC DATA

Boring logs are provided at the end of this section as Appendix A. Available construction diagrams for site wells, including those to be decommissioned, are included in Appendix B. Results of selected geotechnical laboratory testing are provided in Appendix C. Pump test data is provided in Appendix D. Groundwater level data and free product measurements are provided in Appendix E.

1.3 ADDITIONAL INFORMATION ON SUBSURFACE CONDITIONS

Additional information on subsurface conditions at the project site is

contained in the following reports:

a. U.S. Army Corps of Engineers, Chicago District (March 2000), Indiana Harbor and Canal, Maintenance Dredging and Disposal Activities - Design Documentation Report.

b. Patrick Engineering, Inc., (1996) Phase I Site Investigation - Indiana Harbor CDF Geotechnical Investigation, prepared for U.S. Army Corps of Engineers, Chicago District.

c. Patrick Engineering, Inc., (1997) Indiana Harbor CDF Pump Test, prepared for U.S. Army Corps of Engineers, Chicago District.

These reports may be reviewed by contacting the U.S. Army Corps of Engineers, Chicago District at 111 North Canal Street, Chicago, Illinois 60606-7206 (Attn: John Breslin, 312-846-5451).

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY REFERENCE

52.222-38	Compliance With Veterans' Employment Reporting Requirements	DEC 2001
52.236-28	Preparation of Proposals--Construction	OCT 1997

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

“Common parent,” as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

“Taxpayer Identification Number (TIN),” as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the

offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN:._____

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other _____

(f) Common parent.

___ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is $28,500,000.00.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

____ Black American.

____ Hispanic American.

____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Avg. Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51 - 100	____ $1,000,001 - $2 million
____ 101 - 250	____ $2,000,001 - $3.5 million
____ 251 - 500	____ $3,500,001 - $5 million
____ 501 - 750	____ $5,000,001 - $10 million

____ 751 - 1,000 ____ $10,000,001 - $17 million

____ Over 1,000 ____ Over $17 million

(End of provision)

52.219-21 SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (MAY 1999)

(Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees Avg. Annual Gross Revenues

____ 50 or fewer ____ $1 million or less

____ 51 - 100 ____ $1,000,001 - $2 million

____ 101 - 250 ____ $2,000,001 - $3.5 million

____ 251 - 500 ____ $3,500,001 - $5 million

____ 501 - 750 ____ $5,000,001 - $10 million

____ 751 - 1,000 ____ $10,000,001 - $17 million

____ Over 1,000 ____ Over $17 million

(End of provision)

52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

___ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration(PRO0Net); or

___ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2)___ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

(1) Be punished by imposition of a fine, imprisonment, or both;

(2) Be subject to administrative remedies, including suspension and debarment; and

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) ( ) It has, ( ) has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ( ) It has, ( ) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

( ) (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;

( ) (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

( ) (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

( ) (iv) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:

(A) Major group code 10 (except 1011, 1081, and 1094.

(B) Major group code 12 (except 1241).

(C) Major group codes 20 through 39.

(D) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

( ) (v) The facility is not located within the United States or its outlying areas.

(End of clause)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclosure such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (APR 2003)

(a) Definitions. As used in this provision--

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

CLAUSES INCORPORATED BY REFERENCE

52.202-1 Alt I	Definitions (Dec 2001) --Alternate I	MAY 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2003
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	OCT 2003
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-18	Variation in Estimated Quantity	APR 1984
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-11	Price Reduction for Defective Cost or Pricing Data--Modifications	OCT 1997
52.215-13	Subcontractor Cost or Pricing Data--Modifications	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	JAN 1999
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9	Small Business Subcontracting Plan	JAN 2002
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis-Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	DEC 2001

52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	JAN 2004
52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-4	Patent Indemnity-Construction Contracts	APR 1984
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-15	Performance and Payment Bonds--Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	APR 2003
52.232-17	Interest	JUN 1996
52.232-23	Assignment Of Claims	JAN 1986
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-21 Alt I	Specifications and Drawings for Construction (Feb 97) - Alternate I	APR 1984
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	AUG 1987
52.243-5	Changes and Changed Conditions	APR 1984
52.244-6	Subcontracts for Commercial Items	APR 2003
52.246-12	Inspection of Construction	AUG 1996
52.246-21	Warranty of Construction	MAR 1994
52.247-64	Preference for Privately Owned U.S. - Flag Commercial Vessels	APR 2003
52.248-3	Value Engineering-Construction	FEB 2000
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Sep 1996) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.203-7002	Display Of DOD Hotline Poster	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992

252.204-7004 Alt A	Required Central Contractor Registration Alternate A	NOV 2003
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.215-7000	Pricing Adjustments	DEC 1991
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.225-7012	Preference For Certain Domestic Commodities	FEB 2003
252.227-7033	Rights in Shop Drawings	APR 1966
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7002	Obstruction of Navigable Waterways	DEC 1991
252.242-7000	Postaward Conference	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	MAR 2000
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (JUN 2003)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: None

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....
Item 2			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).
List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.
Include other applicable supporting information.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEP 2002)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

_____

(Name)

_____

(Title)

_____

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against
the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under

subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (OCT 2003)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 30 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 30th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph
(e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a “second-tier subcontractor”) a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts DisputesAct of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by . . . . . [insert a description of investigational methods used, such as surveys, auger borings, core borings, test pits, probings, test tunnels].

(b) Weather conditions . . . . . (insert a summary of weather records and warnings).

(c) Transportation facilities . . . . . (insert a summary of transportation facilities providing access from the site, including information about their availability and limitations.

(d) . . . . . (insert other pertinent information).

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

http://farsite.hill.af.mil/

(End of clause)

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Title	File	Drawing No.

(End of clause)

Section 00800 - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than one hundred and forty (140) days after receipt of the Notice to Proceed. The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $ [Contracting Officer insert amount] for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.232-5001 CONTINUING CONTRACTS (MAR 1995)--EFARS

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of _____ has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The contracting officer will promptly notify the contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the contractor shall give written notice to the contracting officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be

given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the contractor, by written notice delivered to the contracting officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the contractor, to reduce said reservation by the amount of such excess.

(End of clause)

SECTION 01100

GENERAL PROVISIONS

PART 1 GENERAL

1.1 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in two copies. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet specific requirements.

a. The Contractor shall be responsible for the professional quality, technical accuracy and the coordination of all designs, drawings and specifications furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise designs, drawings and specifications.

b. Neither the Government's review, approval or acceptance of, nor payment for, any of the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause or action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligence in connection with designs, drawings and specifications, furnished under this contract.

c. The rights and remedies of the Government provided for under the contract are in addition to any other rights and remedies provided by law.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Schedule; G,CS

Refer to FAR CLAUSE entitled SCHEDULES FOR CONSTRUCTION CONTRACTS in Section 00700 for requirements of the schedule.

Drug Free Workplace

Refer to FAR CLAUSE entitled DRUG FREE WORKPLACE in Section 00700.

SD-02 Shop Drawings

Coordination with Others; G,TSC

The coordination schedule shall be submitted.

SD-11 Closeout Submittals

As-Built Drawings; G,TSC

As-Built Drawings shall be submitted as indicated in the AS-BUILT DRAWINGS paragraphs of this section.

1.4 REAL ESTATE

All required right-of-way to do the work is available to the Contractor, and is included on the contract drawings. In the event the Contractor requires any additional access roads and storage areas, he shall obtain such areas at his own expense. The Contractor shall furnish to the Contracting Officer copies of all legal documents or leases permitting his use of private or other properties other than included in the contract.

1.5 AS-BUILT DRAWINGS

a. Working As-Built Drawings. The Contractor shall revise and maintain during the execution of the project two (2) sets of full-scale paper prints by red-line process to show the as-built conditions. These working as-built drawings shall be kept current and available for review on the jobsite at all times. Changes from the contract drawings that are made in the work or additional information that might be uncovered in the course of construction shall be accurately, legibly and neatly recorded and dated as they occur by means of details and notes. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional material and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail that is utilized in the contract drawings. The working as-built drawings will be jointly reviewed for accuracy and completeness by the COR and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working as-built drawings as specified herein, the COR will deduct an amount of $ 15,000, representing the cost of preparing Final As-Built Drawings including CD-ROM, mylar and blue line prints. This amount shall be retained under interim or the final progress payments, until the final as-built drawing submittals are received and accepted by the Government. The retained amount shall be payable within 30 calendar days from the date of acceptance of the As-Built drawings by the Government.

b. Preliminary Submittal. Within 15 calendar days after completion of the work, the Contractor shall prepare and deliver two (2) copies of the

working as-built drawings to the COR for review and approval. If upon review, the working as-built drawings are found to contain errors and/or omissions, they will be returned to the Contractor within 15 calendar days for corrections. The Contractor shall complete the corrections and return the working as-built drawings within 15 calendar days to the COR for approval. The working as-built drawings will be reviewed within 15 calendar days. Upon approval, the working as-built drawings will be returned to the Contractor for use in preparation of final as-built drawings.

c. Final As-Built Drawing Submittal. Within 30 calendar days after receipt of the approved working as-built drawings and the Corps-provided digital contract drawings in Microstation .DGN format, the Contractor shall prepare and make the final submittal. This submittal shall consist of one set of completed final as-built drawings in Microstation .DGN format on CD-ROM, one set (1) of mylars, two (2) sets of blue line prints, and the approved working as-built drawings. When final revisions have been completed, each drawing shall show the wording, "RECORD DRAWING, AS-BUILT" signature block as provided with the Microstation .DGN files. Revisions to each drawing shall be noted and dated in the revision block.

d. All paper prints and reproducible drawings shall become the property of the Government upon final approval. Failure to submit final as-built drawings and working as-built drawings as required herein shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.6 INSPECTION

The presence or absence of an inspector shall not relieve the Contractor of responsibility for the proper execution of work in accordance with the plans and specifications.

1.7 CONDITION OF EXISTING STRUCTURES

Prior to commencement of operations by the contractor at the site, a detailed survey will be made of all existing structures that may be affected by the contractor's operations. The survey will be conducted in coordination with local interests, contractor, Corps of Engineers Representative, and private parties concerned and will be sufficient in scope to provide advance agreement among all concerned as to the condition of the existing structures. The contractor shall be responsible for full and active participation in such pre-construction surveys of existing structures as deemed necessary to permit determination and accurate assessment of any subsequent damage to existing structures that may be incurred during the period of the contract.

1.8 PRESERVATION OF HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

If, during construction activities, the Contractor observes items that might have historical or archaeological value, such observations shall be reported immediately to the Contracting Officer's Representative (COR) so that the appropriate authorities may be notified and a determination can be made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

1.9 MINIMUM AMOUNT OF INSURANCE REQUIRED

In accordance with FAR 52.249-10, "WORK IN A GOVERNMENT INSTALLATION", the following minimum insurance coverages and limits are required. The term "Installation" referred to in this clause is deemed to mean Corps of Engineers project site or federal property

a. Evidence of the following minimum insurance coverages and limits, with concurrent policy expiration dates, must be received by the Department of the Army, Corps of Engineers before the contractor can begin work. This evidence must be on a fully-completed, signed and dated ACCORD Certificate of Insurance. In addition, policy endorsements must be issued by or in behalf of the insuring company or companies naming the Department of the Army, Corps of Engineers as Additional Interest Insured regarding the work. The endorsements must also provide that the Department of the Army, Corps of Engineers receive direct written notice at least thirty (30) calendar days before the effective date of any material changes to, any cancellation of, or any non-renewal of these coverages during the time period of the contractor's work.

b. Should the coverages expire or be terminated during the time period of the contractor's work, the Department of the Army, Corps of Engineers must receive an ACCORD Certificate of Insurance as evidence of renewal or replacement insurance coverage and the supporting policy endorsements as specified above. The required evidence of renewal replacement insurance must be received by either the contracting Officer or Contracting Officer's Representative at least ten (10) calendar days before the coverage expires or is being terminated.

c. All insuring companies must be rated A- (Excellent), or better, by A.M. Best Company, an independent insurance rating service. The ACCORD Certificate of Insurance must identify the A.M. Best numbers for each of the insuring companies.

Comprehensive General Liability	
(Occurrence policy form only)	
General Aggregate	$2,000,000
Products/Completed Operations	$2,000,000
Each Occurrence	$1,000,000
Fire Damage Legal Liability	$ 50,000
Comprehensive Automobile Liability	
(Including Hired Automobile Liability and Non-Owned Automobile Liability)	
Combined Single Limit	$1,000,000
Employers' Liability	
Each Occurrence	$ 500,000
Policy Limit	$ 500,000
Each Employee	$ 500,000
(Or Statutory Limits if higher)	
Workers Compensation	
(As required by State Law or Federal Law)	
Umbrella Liability	
(Occurrence policy form only)	
Each Occurrence and Aggregate	$5,000,000

d. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

1.10 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This clause specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE entitled "DEFAULT (FIXED PRICE CONSTRUCTION)." In order for the Contracting Officer to award a time extension under this clause, the weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

NOTE: NEED CONCURRENCE OR CORRECTIONS FROM TS-C-C ON DAYS

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON A FIVE (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL
22	22	21	7	4	3	3

AUG	SEP	OCT	NOV	DEC 1-15	DEC 16-31
5	3	5	7	3	12

Upon acknowledgement of Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled workday.

The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delays exceeds the number of days anticipated in paragraph 2, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

1.11 PERMITS AND RESPONSIBILITIES

It shall be the responsibility of the Contractor to obtain all permits/licenses required for this project as required under CONTRACT

CLAUSES paragraph entitled "PERMITS AND RESPONSIBILITIES".

1.12 COORDINATION WITH OTHERS

The Contractor shall schedule and coordinate its operations affecting other Contractors, Government hired labor forces, utilities, and/or property within the work limits. Such scheduling shall be accomplished with lead time sufficient for coordination of all involved parties as necessary for timely completion of each contract feature. As evidence of this compliance with this General Provision, the Contractor shall furnish the COR with a copy of each coordinated schedule prior to commencing operations affecting such other Contractors, utilities, and/or property.

1.12.1 Utility and Pipeline Coordination

The U.S. Army Corps of Engineers and the East Chicago Waterway Management District issued a letter to all known utility entities requesting information regarding the location and status of their utilities in the vicinity of the site. The information received has been incorporated into the contract drawings that may not be all-inclusive.

The Contractor shall study the construction plans and site and know in detail the locations of all utilities, not limited to those potentially abandoned and active utilities and pipelines as shown on the plans. Coordination shall commence by contacting and notifying potential utility and pipeline owners that construction activities have commenced. Upon completion of contacting and notifying potential owners, the Contractor shall schedule site visits for the utility and pipeline owners to field survey, stake and mark utility easements, service lines, and service closures points resulting from the demolition and razing of the ECI Refinery. Contractor coordination with all utility companies is required prior to initiating subsurface investigations and earthwork activity. A copy of each coordinated schedule shall be furnished to the Contracting Officer for approval.

The Contractor shall also be responsible for assuring utility work or relocations of utilities by the owner does not interfere with project activities prior to and during construction once work begins.

1.12.2 BP Amoco/Atlantic Richfield Company (ARCO)

The Contractor shall coordinate with and provide and maintain access to the site for BP Amoco/ARCO and its consultants. The Contractor is responsible for maintaining the access roads used by BP Amoco/ARCO for the operation and maintenance of the existing oil recovery system. The Contractor must also provide vehicle decontamination services for BP Amoco/ARCO and its consultants' vehicles that enter and then leave the site. A coordination meeting between the Contractor, BP Amoco/ARCO, its consultants, the East Chicago Waterway Management District and the Corps of Engineers will be arranged after contract award and prior to the initiation of field activities.

1.12.3 Air Monitors and Monitoring Operations

The Contractor shall coordinate with the U.S. Geological Survey (USGS) and shall provide access to the existing air monitors located on the site on the northern, eastern, and western edges of the site. Contact information is provided in the following paragraph. USGS will be on-site to collect air samples every 6 days. The Contractor shall perform work in such a

manner as to avoid damage to the air monitoring equipment, and must avoid placing diesel equipment in proximity to the air monitors such that the diesel exhaust would contaminate samples. The air monitoring being performed by USGS is independent of any air monitoring required for this contract, and the results of this monitoring may be made available to the Contractor upon request. See Sections 01355 ENVIRONMENTAL PROTECTION for other Contractor air monitoring requirements.

1.12.4 Points of Contact for Potential Utilities

Brian Woodberry
NIPSCO
801 E. 86th Ave.
Merrillville, IN 46410
219-647-4299

David Woodsmall
Marathon
277 Streamwood Drive
Valparaiso, IN 46383
219-477-4001

Randy Thomson
Marathon
1900 West Avenue H
Griffith, IN 46319
219-924-8577

Kevin Connelly
Ameritech
302 South East Street
Crown Point, IN 46307
219-662-4402

Dan Olson
East Chicago Sanitary District
5201 Indianapolis Boulevard
East Chicago IN 46312
219-391-8466

Joe Drozd
East Chicago Water Dept.
400 E. Chicago Avenue
East Chicago IN 46312
219-391-8423

Skip Richards or Larry Malnor
Amoco Pipeline Company
28100 Torch Parkway
Warrenville, IL 60555
630-836-5100

Barry Reminder
Buckeye Pipeline Company
123 Pipeline Drive
Griffith, IN 46319
219-924-6603

John Phelps

Transmontaigne-Pipeline Inc.
200 Mansell Court East, Suite 600
Roswell, GA 30076-4853
770-518-3651

Fred Hipshear
Wolverine
8105 Valleywood Lane
Portage, MI 49024
616-323-2491 x24

David Kalet
BP Whiting Refinery
2815 Indianapolis Blvd.
Mail Code 122
Whiting, IN
46394
219-473-3445

Lisa Bailey
Explorer Pipeline
3737 Michigan Street
Hammond, IN 46323
219-989-8267

Gary Hanten
Phillips Pipeline
400 E. Columbus Drive
East Chicago, IN 46312
219-397-6666 x304

Jim Peiguss
Praxair, Inc.
4520 Kennedy Avenue
East Chicago, IN 46312
219-391-5127

Point of Contact for U.S. Geological Survey (Field Sampling Manager)

Tim Willoughby
U.S. Geological Survey
5957 Lakeside Blvd.
Indianapolis, IN 46278
317-290-3333, ext. 166

Point of Contact for U.S. Geological Survey (Field Sampling Supervisor)

Richard Duwelius
U.S. Geological Survey
5957 Lakeside Blvd.
Indianapolis, IN 46278
317-290-3333, ext. 174

1.13 SPECIAL SAFETY REQUIREMENTS

The Contractor shall comply with all applicable Federal, State and Local safety requirements including, but not limited to, those provided in EM 385-1-1.

1.14 ONE CALL SYSTEMS FOR EXCAVATORS

One call systems, established by law, are operated by owners of underground facilities for excavators. Upon notification by an excavator through a one call system, all participating operators of underground facilities in a covered area will identify and locate their facilities. One call systems will be identified by contacting the following:

INDIANA UTILITY CHECK
1-800-382-5544

1.15 ELECTRICAL POWER LINES

The Contractor shall study the construction plans and site and know in detail all locations of power lines within the rights of way. Prior to performing any construction operation adjacent to power lines, appropriate danger signs shall be provided where any equipment scheduled for use on the site is capable of contacting such lines. To confirm the location of underground lines, the Contractor shall contact the appropriate council listed in paragraph "One Call Systems for Excavators". Aerial power lines shall either be shut off and a positive means taken to prevent the lines from being energized, or clearances required by EM 385-1-1, Safety and Health Requirements Manual, shall be maintained. In the area belonging to Northern Indiana Public Service Company (NIPSCO), the electric lines are energized. Work shall not proceed into dangerous areas without an additional workman being assigned the crew to watch the movements of other personnel and equipment to assure that designated clearances are maintained.

1.16 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard, governing the following: lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines; day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland), as applicable.

1.17 TEMPORARY LIGHTS AND SIGNALS REQUIRED BY THE COAST GUARD

All temporary lights and signals required by the U.S. Coast Guard must be displayed during the required work. Information regarding required signals and lights may be obtained from the Commander, U.S. Ninth Coast Guard District, 1240 East Ninth Street, Cleveland, Ohio 44199.

1.18 INDIANA SALES AND USE TAX

a. This contract is a construction contract which contains separate amounts applicable to the performance of the services and the furnishing of the materials as defined in State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002. Notwithstanding any other provisions of this contract, the contract price does not include any amount for Indiana Sales and Use Tax on materials to be incorporated by the Contractor or

Subcontractor into the structure or improvement to real estate. The Contractor or Subcontractor should provide his supplier with a State of Indiana General Exemption Certificate for Construction Contractors (Form ST-134) with respect to such property.

b. For the purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002, the Contractor, pursuant to the requirements of the solicitation shall furnish prior to contract award a breakdown separating pricing (1) materials to be incorporated into the structure or improvement to real estate, (2) services and other obligations of the construction contract, and (3) the total contract price. This breakdown is for the sole purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002 with regard to separate pricing of services and materials and has no other contractual significance.

c. Any subcontracts awarded hereunder shall also contain separate amounts applicable to the performance of services and the furnishing of the materials.

1.19 BORROW/DISPOSAL SITES AND QUARRIES

a. Definitions. For purposes of this general provision, the following definitions apply:

(1) Government-Suggested borrow/disposal site or quarry means a site or quarry suggested by the Government for use by the Contractor concerning which all applicable federal, state and local environmental statutory and regulatory requirements may or may not have been satisfied.

(2) Commercial/existing borrow/disposal site or quarry means a site or quarry which is either in the business of providing borrow material or has been used as a disposal site for other purposes and is available for use; and concerning which all applicable federal, state and local environmental statutory and regulatory requirements have been satisfied.

(3) Contractor-chosen borrow/disposal site or quarry means a site or quarry chosen by the Contractor for use concerning which none or not all of the applicable Federal, State and Local environmental statutory and regulatory requirements have been satisfied.

b. If a borrow/disposal site or quarry is identified in the contract specifications as Government-Suggested, it is the responsibility of the Contractor to ascertain whether or not all Federal, State and Local environmental statutory and regulatory requirements have been satisfied. If any of such requirements have not been satisfied, the Contractor is required to follow the procedures set forth in paragraph 1.16.d(4) below. Use of such a site or quarry must be approved by the Contracting Officer.

c. If the Contractor chooses a commercial/existing borrow/disposal site or quarry, the Contractor is not required to ensure that all applicable federal, state and local environmental statutory and regulatory requirements have been satisfied, but is required to provide to the Government either, as a minimum, a letter from the owner/operator of the commercial/existing borrow/disposal site or

quarry certifying that all environmental and operating permits have been acquired, or actual copies of all such environmental and operating permits. Use of such a site or quarry must be approved by the Contracting Officer. The Contractor shall adhere to all rules, regulations and business practices required by the owner/operator.

d. If a Contractor decides to use a Contractor-chosen borrow/disposal site or quarry, it is the Contractor's responsibility to ensure that all applicable Federal, State and Local environmental statutory and regulatory requirements have been satisfied. Use of such a site or quarry must be approved by reconstructing Officer, and such approval will not be granted unless all applicable requirements have been met and such use of the site does not pose significant environmental impacts.

(1) The specific requirements which must be met by the Contractor before a Contractor-chosen (or, when applicable, a Government-recommended) site or quarry will be approved by the COR include, at a minimum, but are not necessarily limited to, compliance with the following environmental laws, regulations and executive orders:

Federal Laws, Regulations, and Executive Orders

Name	Agency
Section 404, Clean Water Act (Permit)	U.S. Army Corps of Engineers, Detroit District (IN/WI) Chicago District (IL)
Section 10, River and Harbor Act of 1899 (Permit)	U.S. Army Corps of Engineers
Emission Limitations, Clean Air Act	U.S. Environmental Protection Agency
Section 9, Endangered Species Act of 1973	U.S. Fish and Wildlife Service, Barrington Office (IL) Bloomington Office (IN) Green Bay Office (WI)
Section 703, Migratory Bird Treaty Act of 1918	U.S. Fish and Wildlife Service
Section 106, National Historic Preservation Act of 1966	Illinois Historic Preservation Agency (IL Indiana Department of Natural Resources, Division of Historic Preservation (IN) State Historical Society of Wisconsin (WI)
Flood Plain Management,	U.S. Army Corps of Engineers, Chicago District

Executive Order 11988

Surface Mining Control and Reclamation Act of 1977	Bureau of Mines
Resource Conservation and Recovery Act of 1976	U.S. Environmental Protection Agency
Toxic Substance Control Act	U.S. Environmental Protection Agency

Indiana State Statutes

Name	Agency
Construction Within a Floodway (Permit)	Indiana Department of Natural Natural Resources, Division of Water
Section 401, Clean Water Act (Waiver of Permit)	Indiana Department of Environmental Management
Section 402, Clean Water Act (NPDES Permit)	Indiana Department of Environmental Management

It is the Contractor's responsibility to ensure that all applicable federal, state and local environmental statutory and regulatory requirements are satisfied, regardless of their presence on, or absence from, the above list.

(2) It is the responsibility of the Government to ensure that the requirements of the National Environmental Policy Act (NEPA) have been complied with. If the Contractor decides to use a site or quarry which has not previously undergone an environmental review under NEPA (either Government-recommended or Contractor-chosen), the Contractor will so notify the Contracting Officer, who shall arrange for such an environmental review. This review and compliance process may include inter-agency coordination and the preparation and circulation for public review of environmental documentation. It is the responsibility of the Contractor to allow sufficient time in the construction schedule to accommodate this review and compliance process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the process. The review and compliance process requires a minimum time frame of ninety (90) days, but could take substantially longer, possibly up to one year or, in unusual circumstances, even longer than one year, to complete. Any construction delays caused by the need to conduct an environmental review under NEPA shall be solely the responsibility of the Contractor.

(3) It is also the responsibility of the Government to perform Section 7 consultation under the Endangered Species Act, to coordinate with the U.S. Fish and Wildlife Service and appropriate state wildlife agencies under the Fish and Wildlife Coordination Act, and to perform a Farmland Conversion Impact Rating under the

Farmland Protection Policy Act for all Government-Suggested or Contractor-Chosen sites. This shall be accomplished concurrently with the NEPA environmental review process. It is the responsibility of the Contractor to allow sufficient time in the construction schedule to accommodate these consultation and coordination requirements as well as the NEPA review process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the completion of these consultation and coordination requirements.

(4) The Government cannot guarantee that any Government-Suggested or Contractor-chosen site is capable of complying with all applicable Federal, State and Local environmental statutory and regulatory requirements and may reject any such site proposed for use by the Contractor for environmental reasons. If the Contracting Officer does not approve the use of a Government-recommended or Contractor-chosen borrow/disposal site or quarry because not all applicable federal, state or local environmental statutory and regulatory requirements have been satisfied, or because the Government determines that such site or quarry could not be used for environmental reasons as a result of the environmental review under NEPA, it is the Contractor's responsibility to locate an alternate site or quarry and to perform all necessary reviews to obtain approval of the use of such alternative site or quarry. Any construction delays caused by the need to locate an alternate site or quarry, shall be solely the responsibility of the Contractor.

(5) Nothing in this clause shall relieve the Contractor from the responsibility of obtaining all non-environmental permits and licenses which may be required under federal, state or local statutes, regulations and ordinances.

PART 2 PRODUCTS - Not Applicable

PART 3 EXECUTION - Not Applicable

-- End of Section --

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

Payment items for performing and completing work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described under this clause. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, equipment, and any associated Contractor quality control, environmental protection, safety equipment and personal protective equipment (PPE), tests and reports, and all work required for which separate payment is not otherwise provided. The Contractor shall submit for approval by the Contracting Officer a proposed price breakdown for all lump sum bid items. The contractor is responsible for determining the level of PPE and including the cost in the lump sum. No additional compensation will be made for changes in PPE requirements during the life of the project.

1.1.1 Mobilization and Demobilization (Bid Item 0001)

1.1.1.1 Payment

Payment will be made at the applicable lump sum price for mobilization and demobilization of all the Contractor's plant and equipment to complete the work. Payment constitutes full compensation for all plant, labor, equipment, and incidentals associated with mobilization and demobilization. See SECTION 00800 SPECIAL CONTRACT REQUIREMENTS, paragraph 1.11 for further information.

1.1.1.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.2 TEMPORARY CONSTRUCTION FACILITIES (Bid Item 0002)

1.1.2.1 Payment

Payment will be made at the contract lump sum price for the temporary construction office, utilities, security, construction signs and all associated costs as described in SECTION 01500 TEMPORARY CONSTRUCTION FACILITIES and SECTION 01580 PROJECT SIGN AND SAFETY SIGN. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.2.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.3 TURBIDITY CURTAIN SYSTEM (Bid Item 0004)

1.1.3.1 Payment

Payment will be made at the contract lump sum price for the installation and maintenance of the turbidity curtain system through out pipe removal as described in 02216 SILT TURBIDITY CURTAIN. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

The Contractor shall be paid 50% of the applicable lump sum price upon installation of the turbidity curtain system. A further 30% of the Contractor's compensation shall be paid throughout the duration of the Contract at a rate equivalent to the overall progress of the work. The final 20% of the applicable lump sum price shall be paid upon removal of the shoring system and removal and disposal of the silt turbidity curtain.

1.1.3.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.4 VEHICLE AND EQUIPMENT DECONTAMINATION (Bid Item 00017)

1.1.4.1 Payment

Payment at the contract lump sum price will be made for providing a decontamination facility/pad for vehicles and equipements leaving the site as described in SECTION 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS and 01355 ENVIRONMENTAL PROTECTION. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.4.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.5 CONSTRUCTION EMISSIONS AIR MONITORING (Bid Item 0018)

1.1.5.1 Payment

Payment shall be made at the contract lump sum price for obstrution removal air monitoring, including air monitoring equipment; sampling, analytical testing, and reporting, including Quality Assurance/Quality Control (QA/QC); and equipment maintenance. Payment constitutes full compensation for all labor, materials, equipment, sample analysis, power supply, and all other incidentals necessary to complete the work as described in SECTION 01355 ENVIRONMENTAL PROTECTION.

Obstruction removal air monitoring shall consist of high-volume air samples for PAHs and PCBs, and low-volume samples for VOCs, in conjunction with real-time monitoring for particulates, as outlined in SECTION 01355. The costs incurred for real-time monitoring shall be included within the contract unit cost for Items 0014 of the Bid Schedule. The Contractor shall be paid throughout the duration of the Contract at a rate equivalent to the overall progress of the work.

1.1.5.2 Measurement

Measurement for high-volume (PAH/PCB) and low-volume (VOC) sampling shall

be based on each sample collected and analyzed.

1.1.5.3 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.6 PRE-CONSTRUCTION SURVEY (Bid Item 0019)

1.1.6.1 Payment

Payment at the contract lump sum price will be made for the pre-construction survey to identify the locations of all above ground and underground utilities and obstructions prior to construction. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.6.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.7 PERFORMANCE AND PAYMENT BONDS (Bid Item 0020)

1.1.7.1 Payment

Payment will be made at the contract lump sum price for the performance and payment bonds that are required as part of this contract. The Government will pay either the actual cost of the Performance and Payment Bonds or the Contractor's bid price, whichever is less. All costs associated with this item shall be included in the lump sum contract price.

1.1.7.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the performance and completion of work in this contract for which contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular unit price item, shall be included in the listed unit price item most closely associated with the work involved. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, equipment, and any associated Contractor quality control, environmental protection, safety equipment and personal protective equipment (PPE), tests and reports required for each of the unit price items. The contractor is responsible for determining the level of PPE and including the cost in the unit price. No additional compensation will be made for changes in PPE requirements during the life of the project.

1.2.1 CLEARING AND GRUBBING (Bid Item 0003)

1.2.1.1 Payment

Payment will be made at the contract unit price for clearing and grubbing including as described in SECTION 02231 CLEARING AND GRUBBING. Payment constitutes full compensation for all plant, labor, equipment, materials, handling, transporting, on-site stockpiling, and incidentals necessary to complete the work. The refilling of holes resulting from clearing and

grubbing operations will not be measured for payment but will be considered as a subsidiary obligation under the above item.

1.2.1.2 Measurement

Areas cleared and grubbed shall be measured for payment in acres. Measurement shall be a survey of the areas accepted for payment or other methods agreed to prior to clearing and grubbing.

1.2.1.3 Unit of Measure

Unit of measure: Acres (AC)

1.2.2 SHORING SYSTEM (Bid Item 0005)

1.2.2.1 Payment

Payment will be at the contract unit price for construction of each shoring system and dredging and transporting of the dredged material within each shoring system as described in SECTION 02250 SHORING SYSTEM, 02464 METAL SHEET PILING, 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS, 05502 METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS and 02325 DREDGING. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work including one (1) complete shoring system to be the property of the government. Dredging conditions shown on the drawings indicate conditions at time of survey and actual conditions may vary.

1.2.2.2 Measurement

Dredged materials will not be measured for payment. Measurement for payment of each shoring system will be determine by the satisfactory removal of the pipes and backfilling with in each shoring system.

1.2.2.3 Unit of Measure

Unit of measure: Each (EA)

1.2.3 CUTTING & REMOVING, CAPPING PIPES IN THE CANAL
14 INCHES DIA PIPE (Bid Item 0006AA)
10 INCHES DIA PIPE (Bid Item 0006AB)
8 INCHES DIA PIPE (Bid Item 0006AC)
6 INCHES DIA PIPE (Bid Item 0006AD)

1.2.3.1 Payment

Payment shall be made at the contract unit price for cutting, removing, plugging or capping all subsurface pipelines as shown on the plans and described in SECTION 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES. Payment shall also include handling, transporting, and on-site stockpiling of the cut pipes. Payment shall be at the unit price of the pipe diameter and no separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work and subjected to field verification.

1.2.3.2 Measurement

Measurement shall be based on the number of pipelines removed, plugged and capped.

1.2.3.3 Unit of Measure

Unit of measure: Each (EA)

1.2.4 [Enter Appropriate Subpart Title Here]1.2.4 DEMOLITION OF 24" DIA BOLLARD (CONCRETE POSTS) (Bid Item 0007)
DEMOLITION OF 24" DIA CONCRETE PADS (Bid Item 0008)
DEMOLITION OF GATE VALVES (Bid Item 0009)
DEMOLITION OF WATER VALVES (Bid Item 0010)
DEMOLITION OF VALVES (Bid Item 0011)
DEMOLITION OF PIPES (SIZE VARIES) (Bid Item 0012)
DEMOLITION OF STEEL AND CONCRETE STRUCTURES (Bid Item 0013)
DEMOLITION OF HYDRANTS (Bid Item 0014)
DEMOLITION OF MANHOLE (Bid Item 0015)

1.2.4.1 Payment

Payment shall be made at the contract unit price for demolition and removal of posts, pads, valves, pipes, steel structures and concrete structures as shown on the plans and described in SECTIONS 02220 DEMOLITION. Payment shall also include handling, transporting, on-site stockpiling of removed items and backfilling. Payment shall be at the unit price regardless of the size of the item removed and no separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, trench boxes excavation dewatering, and associated incidentals. Payment for demolition of steel and concrete structure shall include any and all pipes, and other items associated with that structure. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

1.2.4.2 Measurement

Measurement shall be based on the number of obstruction removed.

1.2.4.3 Unit of Measure

Unit of measure: Each (EA)

1.2.5 REMOVE EXISTING FENDERS AND WALL ACCESSORIES (Bid Item 0017)

1.2.5.1 Payment

Payment shall be made at the contract unit price for removal of the existing fender and wall accessories along the sheet pile structure as shown on the plans and described in SECTION 02220 DEMOLITION. Payment shall also include handling, transporting, and on-site stockpiling of fender and wall accessories. No separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

1.2.5.2 Measurement

Measurement shall be based on the length of pipes removed and stockpiled.

1.2.5.3 Unit of Measure

Unit of measure: Lineal Feet (LF))

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site (htttp://155.80.93.251) web site. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

Administration
Finances
Quality Control
Submittal Monitoring
Scheduling
Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments",Section 01330, SUBMITTAL PROCEDURES, and Section 01451, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

Hardware

IBM-compatible PC with 500 MHz Pentium or higher processor

128+ MB RAM for workstation / 256+ MB RAM for server

1 GB hard drive disk space for sole use by the QCS system

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader, 8x speed or higher

SVGA or higher resolution monitor (1024 x 768, 256 colors)

Mouse or other pointing devise

Windows compatible printer (Laser printer must have 4+ MB of RAM)

Connection to the Internet, minimum 56 BPS

Software

MS Windows 98, ME, NT, or 2000

Word Processing software compatible with MS Word 97 or newer

Latest version of : Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher

Electronic mail (E-mail), MAPI compatible

Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control(CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class. This is applicable only if the contract award is in excess of 1 million dollars.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the

Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section 01451, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies

it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts". The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.1 File Medium

The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Disk or CD-ROM Labels

The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The Government will provide the file names to be used by the Contractor with the QCS software.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

Certificates of insurance.
Surety bonds.
List of proposed subcontractors.
List of proposed products.
Construction Progress Schedule.
Submittal schedule.
Schedule of values.
Health and safety plan.
Turbidity curtain work plan.
Quality control plan.
Environmental protection plan.

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the contractor for integrating the product or system into the project.

Drawings prepared by or for the contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into

the project and those which will be removed at conclusion of the work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports

Daily checklists

Final acceptance test and operational test procedure

SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

As-built drawings.

Special warranties.

Posted operating instructions.

Training plan.

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system

must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The COR's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer or the COR and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.6 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples

remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations. Six (6) copies of each submittal shall be sent to the following address:

US Army Corps of Engineers, Calumet Area Office, 906 Griffith Boulevard, Griffith, IN 46319.

1.7 SUBMITTAL REGISTER

At the end of this section is a submittal register (ENG FORM 4288) showing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall maintain a submittal register for the project.

1.8 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

1.9 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

1.10 DEVIATIONS

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.11 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.12 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. 4 copies of the submittal will be retained by the Contracting Officer and 2 copies of the submittal will be returned to the Contractor.

1.13 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.14 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-R-XXXX

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01100	SD-01 Preconstruction Submittals															
			Construction Schedule		G	CS												
			Drug Free Workplace															
			SD-02 Shop Drawings															
			Coordination with Others	1.12	G	TSC												
			SD-11 Closeout Submittals															
			As-Built Drawings	1.5	G	TSC												
		01355	SD-01 Preconstruction Submittals															
			Environmental Protection Plan	1.7	G	HE												
			SD-06 Test Reports															
			Air Monitoring Summary		G	HE												
		01451	SD-01 Preconstruction Submittals															
			Quality Control Plan	3.2	G	CO												
		01500	SD-01 Preconstruction Submittals															
			Site Plan		G	DC												
		01525	SD-01 Preconstruction Submittals															
			Accident Prevention Plan (APP)		G													
			Activity Hazard Analysis (AHA)		G													
			Crane Critical Lift Plan	1.8.1	G													
			Crane Work Plan	1.8.1	G													
			Proof of Qualification for Crane		G													
			Operators															
			SD-06 Test Reports															
			Accident Reports	1.13.1														
			Monthly Exposure Reports	1.13.3														

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-R-XXXX

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01525	Regulatory Citations and	1.13.4														
			Violations															
			Crane Reports	1.13.5														
			SD-07 Certificates															
			Confined Space Entry Permit	1.10														
			Certificate of Compliance (Crane)															
		02115	SD-01 Preconstruction Submittals															
			Site safety and health plan	3.1	G HE*													
			Piping removal and disposal plan	1.6	G DC													
			Spill and discharge control plan	3.2	G HE													
			SD-06 Test Reports															
			Laboratory testing reports		G HE													
			SD-07 Certificates															
			Qualifications		G													
			SD-11 Closeout Submittals															
			Inspection permits, and other		G													
			permits															
			Identification of pipe removed and		G													
			disposed of															
			Starting and ending dates of	3.15	G													
			reporting period															
			Closure report	3.15	G													
		02216	SD-01 Preconstruction Submittals															
			Turbidity Curtain Work Plan		G													
			CC*															
			SD-03 Product Data															

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-R-XXXX

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02216	Manufacturer's certified material															
			property data sheets															
			Manufacturer's quality control															
			manual															
			Manufacturer's certified quality															
			control test results															
			Warranty															
			SD-04 Samples															
			Geotextile fabric, metal chain,															
			metal cable, and float material															
			samples															
			SD-06 Test Reports															
			Friction Test Results															
		02220	SD-01 Preconstruction Submittals															
			Work Plan		G													
			Pre-Construction Survey	3.1	G													
			Demolition plan	1.8	G													
			SD-07 Certificates															
			Notification of Demolition		G													
			SD-11 Closeout Submittals															
			Receipts															
		02250	SD-02 Shop Drawings															
			Detail Drawings	2.2.1	G LRP													
			SD-03 Product Data															
			Work Plan	1.3	G LRP													
		02325	SD-01 Preconstruction Submittals															

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-R-XXXX

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02325	Dredging		G													
			SD-02 Shop Drawings															
			Bucket		G													
			SD-03 Product Data															
			Equipment		G													
			Roll Off Box		G													
			Trucks for Hauling Dredged		G													
			Materials															
			SD-07 Certificates															
			Dredging, Disposal, and Loading	2.2	G	HE												
			Plan															
			Protection plan		G													
			Spillage and Decontamination		G													
			Plan															
		02464	SD-03 Product Data															
			Pile Driving Equipment	3.1.1	G	CS												
			SD-06 Test Reports															
			Materials Tests	2.3.1	G	LRP												
		05055	SD-03 Product Data															
			Welding of Structural Steel	2.1.2.1	G	CS												
			SD-06 Test Reports															
			Tests, Inspections, and	2.2	G	CS												
			Verifications															
			SD-07 Certificates															
			Qualification of Welders and	1.4	G	CS												
			Welding Operators															

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-R-XXXX

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		05502	SD-03 Product Data															
			Miscellaneous Metals and	2.1	G LRP													
			Standard Metal Articles															
			SD-06 Test Reports															
			Miscellaneous Metals and	2.1	G LRP													
			Standard Metal Articles															

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR FIO ☐ GOV'T ☐ APPROVAL

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* b.	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See Instruction no. 8) c.	NO. OF COPIES d.	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. e.	DRAWING SHEET NO. f.	FOR CONTRACTOR USE CODE g.	VARIATION (See instruction no. 6) h.	FOR CE USE CODE i.

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

Instructions

1. Section I will be initiated by the contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for “Transmittal No.”. This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; in resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The “Item No.” will be the same “Item No.” as indicated on ENG FORM 4288-R for each entry on this form.

5. Separate transmittal form will be used for submittals under separate section of the specifications.

6. a check shall be placed in the “Variation” column when a submittal is not in accordance with the plans and specifications—also, a written statement to that effect shall be included in the space provided for “Remarks.

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer’s Certificate of Compliance is transmitted, indicate “Sample” or “Certificate” in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I columni to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g. to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A – Approved as submitted.

B – Approved, except as noted on drawings.

C – Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D – Will be returned by separate correspondence.

E – Disapproved (See attached).

F – Receipt acknowledged.

FX – Receipt acknowledged, does not comply as noted with contract requirements.

G – Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG form 4025-R)

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
49 CFR 171 - 178	Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

STATE OF INDIANA

327 IAC 15-5-7	General Requirements for Storm Water Quality Control
326 IAC 6-1-11.1	Lake County Fugitive Particulate Matter Control Requirements

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment

aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Land Application for Discharge Water

The term "Land Application" for discharge water implies that the Contractor shall discharge water at a rate which allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" shall occur. Land Application shall be in compliance with all applicable Federal, State, and local laws and regulations.

1.2.5 Surface Discharge

The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers,creeks, and/or "waters of the United States" and would require a permit to discharge water from the governing agency. All projects with land disturbances greater than or equal to one acre in total area must have a National Pollution Discharge Elimination System (NPDES)Construction Site Activity Storm Water Permit, issued by the Indiana Department of Environmental Management. All projects with discharge to waters of the United States must have a Section 401 Water Quality Certification or Waiver issued by the Indiana Department of Environmental Management.

1.2.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328, are considered waters of the United States. The Contractor shall comply with all provisions of the (Clean Water Act) Section 401 Water Quality Certification or Waiver for this project.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of

this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

Assurance of compliance with this section by Subcontractors will be the responsibility of the Contractor. The Contractor shall also be responsible for insuring that haulers follow the approved route when hauling dredged sediment.

1.5 PAYMENT

Air quality monitoring, requirements included in Section 3.4, will be paid for under Bid Item 014, with all other work in this section incidental to the contract. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES.

SD-01 Preconstruction Submittals

Environmental Protection Plan;G,HE

The environmental protection plan. The requirements for the plan are given in paragraph 1.7.

SD-06 Test Reports

Air Monitoring Summary;G,HE

The air monitoring summary. The requirements for the summary are given in paragraph 3.4.8.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction site activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Discussion of topics or issues which are not identified in this section,

but which the Contractor considers necessary, is not a requirement, but rather is an opportunity for the Contractor to improve the final project and/or environmental safety of the site through the use of his experience/expertise. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan, including any reporting requirements; and methods for administration of the Contractor's Environmental Protection Plan. The Environmental Protection Plan shall be current and maintained onsite by the Contractor. The Environmental Protection Plan shall include a Construction Plan. It is the responsibility of the Contractor to have the Construction Plan reviewed and approved by the local county Soil and Water Conservation District office, in the county where the construction activity will take place, prior to submitting the Environmental Protection Plan to the Government. The reviewing authority can make recommendations and request amendments to the Construction Plan. The local county Soil and Water Conservation District office has 28 calendar days to review the Construction Plan. If after 28 calendar days the local county Soil and Water Conservation District has not provided written approval, assent to the Construction Plan is assumed. The Contractor shall provide written approval from the local county Soil and Water Conservation District, if provided, in the Environmental Protection Plan. The Government will review the Environmental Protection Plan, including the Construction Plan, and then will submit the Notice of Intent (NOI) to the Indiana Department of Environmental Management after the plan has been approved. No construction will take place before the submission of the NOI. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The Environmental Protection Plan shall include, but shall not be limited to, the following:

a. A list of Federal, State and local laws, regulations, and permits concerning environmental protection, pollution control and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations and permits. A list of personnel who will implement and/or oversee environmental protection shall also be included.

b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.

c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.

d. Description of the Contractor's environmental protection personnel training program, including training for subcontractors.

e. A Construction Plan, which includes erosion and sediment controls. This Construction Plan must be approved by the local Soil and Water Conservation District prior to the submission of the plan to the Government. The contents of the Construction Plan shall include, but are not limited to:

1. Project narrative and supporting documents, including the following information:

A. An index indicating the location, in the construction plans, of all information required in the Construction Plan.

B. Description of the nature and purpose of the project.

C. Legal description of the project site. The description should be to the nearest quarter section, township, and range, and include the civil township.

D. Soil properties, characteristics, limitations, and hazards associated with the project site and the measures that will be integrated into the project to overcome or minimize adverse soil conditions.

E. General construction sequence of how the project site will be built, including phases of construction.

F. Hydrologic Unit Code (14 Digit) available from the United States Geological Survey (USGS).

G. A reduced plat or project site map showing the lot numbers, lot boundaries, and road layout and names. The reduced map must be legible and submitted on a sheet or sheets no larger than eleven (11) inches by seventeen (17) inches for all phases or sections of the project site.

H. Identification of any other state or federal water quality permits that are required for construction activities associated with the owners project site.

2. Vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads, such as a USGS topographic quadrangle map or county or municipal road map.

3. An existing project site layout that must include the following information:

A. Location and name of all wetlands, lakes, and water courses on or adjacent to the project site.

B. Location of all existing structures on the project site.

C. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exists.

D. Soil map of the predominant soil types, as determined by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Soil Survey, or an equivalent publication, or as determined by a soil scientist. A soil legend must be included with the soil map.

E. Identification and delineation of vegetative cover, such as grass, weeds, brush, and trees, on the project site.

F. Land use of all adjacent properties.

G. Existing topography at a contour interval appropriate to indicate drainage patterns.

4. Final project site layout, including the following

information:

A. Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas.

B. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exist.

C. Proposed final topography at a contour interval appropriate to indicate drainage patterns.

5. A grading plan, including the following information:

A. Delineation of all proposed land disturbing activities, including off-site activities that will provide services to the project site.

B. Location of all soil stockpiles and borrow areas.

C. Information regarding any off-site borrow, stockpile, or disposal areas that are associated with a project site and under the control of the project site owner.

D. Existing and proposed topographic information.

6. A drainage plan, including the following information:

A. An estimate of the peak discharge, based on the ten (10) year storm event, of the project site for both preconstruction and postconstruction conditions.

B. Location, size, and dimensions of all storm water drainage systems, such as culverts, storm sewers, and conveyance channels.

C. Locations where storm water may be directly discharged into ground water, such as abandoned wells or sinkholes. Please note if none exist.

D. Locations of specific points where storm water discharge will leave the project site.

E. Name of all receiving waters. If the discharge is to a separate municipal storm sewer, identify the name of the municipal operator and the ultimate receiving water.

F. Location, size, and dimensions of features, such as permanent retention or detention facilities, including existing or manmade wetlands, used for the purpose of storm water management.

7. A storm water pollution prevention plan associated with construction activities. The plan must be designed to, at least, meet the general requirements for storm water quality control described in Indiana's regulation, 327 IAC 15-5-7 and must include the following:

A. Location, dimensions, detailed specifications, and construction details of all temporary and permanent storm water quality measures.

B. Temporary stabilization plans and sequence of implementation.

C. Permanent stabilization plans and sequence of implementation.

D. Temporary and permanent stabilization plans shall include the following:

(i) Specifications and application rates for soil amendments and seed mixtures.

(ii) The type and application rate for anchored mulch.

E. Construction sequence describing the relationship between implementation of storm water quality measures and stages of construction activities.

F. Self-monitoring program including plan and procedures.

G. A description of potential pollutant sources associated with the construction activities, which may reasonable be expected to add a significant amount of pollutants to storm water discharges.

H. Material handling and storage associated with construction activity shall meet the spill prevention and spill response requirements in Indiana's regulation, 327 IAC 2-6-1.

8. The post construction storm water pollution prevention plan. The plan must include the following information:

A. A description of potential pollutant sources from the proposed land use, which may reasonable be expected to add a significant amount of pollutants to storm water discharges.

B. Location, dimensions, detailed specifications, and construction details of all post construction storm water quality measures.

C. A description of measures that will be installed to control pollutants in storm water discharges that will occur after construction activities have been completed. Such practices include infiltration of run-off, flow reduction by use of open vegetated swales and natural depressions, buffer strip and riparian zone preservation, filter strip creation, minimization of land disturbance and surface imperviousness, maximization of open space, and storm water retention and detention ponds.

D. A sequence describing when each post construction storm water quality measure will be installed.

E. Storm water quality measures that will remove or minimize pollutants from storm water run-off.

F. Storm water quality measures that will be implemented to prevent or minimize adverse impacts to stream and riparian habitat.

G. A narrative description of the maintenance guidelines for all post construction storm water quality measures to facilitate their proper long-term function. This narrative description shall be made available to future parties who will assume responsibility for the operation and maintenance of the post construction storm water quality measures.

f. A Work Site and Access Roads Traffic Control Plan, and a plan for restricting unauthorized access in the work area. The Traffic Control Plan would include measures to reduce erosion by construction traffic, especially during wet weather. The plan shall also include measures to minimize the amount of mud transported onto paved public roads by vehicles or runoff. Vehicle decontamination shall be a requirement prior to any vehicle leaving the site.

g. Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.

h. The Spill Control Plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall

include as a minimum:

1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local fire department or emergency response agency in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.

2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and any subcontractors, and methods of accomplishing the training.

4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

i. A Non-hazardous Solid Waste Disposal Plan, identifying methods and locations for solid waste disposal, excluding clearing and demolition debris. Specific information shall be provided on the proposed disposal of solid waste. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of waste. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. Evidence of the disposal facility's acceptance of the waste shall be attached to this plan during the construction. The Contractor shall attach a copy of each of the Non-hazardous Solid Waste Diversion Reports to the disposal plan. The report shall be submitted on the first working day after the first quarter that non-hazardous solid waste has been disposed and/or diverted and shall be for the previous quarter (e.g. the first working day of January, April, July, and October). The report shall indicate the total amount of waste generated and total amount of waste diverted in cubic yards or tons along with the percent that was diverted. Sanitary waste and solid waste shall not be mixed with, transported with, or disposed of with the dredged material. See SECTION 01100 GENERAL PROVISIONS for Borrow/Disposal Site information. The dredged material shall be handled and disposed of as specified in SECTION 02325 DREDGING and SECTION 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES.

j. A Recycling and Solid Waste Minimization Plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to

participate in Federal, State, Regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.

k. An Air Quality Monitoring Plan, detailing provisions to assure that volatile emissions, dust, debris, materials, trash, etc., do not migrate off-site and pose a hazard to the surrounding community. The Air Quality Monitoring Plan shall outline materials, methods, and procedures for the monitoring of air quality at the project site. The Air Quality Monitoring Plan shall also include a Quality Assurance Plan outlining quality assurance and quality control methods for the sampling and analytical procedures. Specific requirements for both the Air Quality Monitoring Plan and the Quality Assurance Plan are outlined in Paragraph 3.4, Air Resources.

l. A Contaminant Prevention Plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.

m. A Wastewater Management Plan that identifies the methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, decontamination water, hydrostatic test water, water used in flushing of lines, and entrained water that is associated with any spillage occurring during the transfer of dredged materials from the canal into roll-off boxes.

n. A historical, archaeological, cultural resources, biological resources, and wetlands plan, that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: and/or identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

o. Environmental monitoring plans for the job site, including land, water, and noise monitoring.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements FAR Clause 52.236-9 "PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS". Prior to the start of any onsite construction activities, the Contractor and the

Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of FAR Clause 52.236-9, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications, which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.10 NOTIFICATION

The Contractor is responsible for notifying the Contracting Officer of any noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan and proposed corrective actions. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This paragraph supplements the Contractor's responsibility under FAR Clause 52.236-7 "PERMITS AND RESPONSIBILITIES" to the extent that the Government will obtain the Section 401 Water Quality Certification or Waiver and Floodway Permit. The Government will obtain these permits as an agent, for the East Chicago Waterway Management District. The Contractor shall comply with all requirements under the terms and conditions set out in the 401 Water Quality Certification or Waiver, Clean Water Act and Floodway Permit, Flood Control Act. Contract award is contingent on the Corps of Engineers obtaining the aforementioned water quality certification or waiver from the Indiana Department of Environmental Management (IDEM) and floodway permit from the Indiana Department of Natural Resources (IDNR).

The Contractor shall be responsible for complying with all environmental permits and commitments required by Federal, State, Regional, and local environmental laws and regulations.

3.2 LAND RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor. Section 1.8 includes information on protection of features that shall be identified in a pre-construction site survey.

3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.2.3 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs). BMPs may include, but not be limited to, vegetation cover, stream bank stabilization, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, inlet and outfall protection, diversion channels, and sedimentation basins. The Contractor's best management practices shall also be in accordance with the State of Indiana National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention requirements. Any temporary measures shall be removed after the area has been stabilized. All construction areas shall be seeded as soon as possible following construction.

3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved by the Contracting Officer. Borrow areas and spoil areas shall be managed to minimize erosion and to prevent sediment from entering nearby waters or leaving the site as runoff. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from erosion and sedimentation.

3.3 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management and control to avoid pollution of surface and ground waters. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities, which are included in this contract.

3.3.1 Cofferdams, Diversions, and Dewatering Operations

Construction operations for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure shall be controlled at all times to maintain compliance with existing State water quality standards and designated uses of the surface water body. The Contractor shall comply with the State of Indiana water quality standards and anti-degradation provisions, the Clean Water Act Section 404, and the Section 401 Water Quality Certification or Waiver for this project.

3.4 AIR RESOURCES

Equipment operation, activities, and processes performed by the Contractor in accomplishing the specified construction shall comply with all applicable Federal, State, and local air quality laws and regulations. To control off-site air quality impacts during the on-site construction activities, the Contractor shall conduct an obstruction removal air monitoring program, as described in the following paragraphs. The Contractor must submit for Government approval an Air Quality Monitoring Plan as part of the Environmental Protection Plan. The Air Quality Monitoring Plan shall outline the equipment, sampling plan, analytical methods, and quality assurance and control procedures utilized for the obstruction removal air monitoring program, as outlined in the paragraphs below.

The Air Quality Monitoring Plan shall also include anticipated emission control measures for volatile or particulate emissions (as defined below), and provide details of a corrective action plan to control releases. The Contracting Officer must approve the Air Quality Monitoring Plan before work can begin on the site.

3.4.1 Obstruction Removal Air Monitoring Requirements

The Contractor will conduct air monitoring to confirm that obstruction removal construction activities do not adversely impact ambient air quality in the project vicinity. The requirements for this monitoring program, hereby referred to as "obstruction removal air monitoring", are distinct from the personal exposure monitoring required by OSHA for the purpose of ensuring site worker health and safety.

Obstruction removal air monitoring shall consist of two distinct types of atmospheric monitoring:

a. Volatile emissions air monitoring
b. Particulate emissions air monitoring

The volatile emissions monitoring requirements will be specific to activities occurring on-site, and are described in full in Paragraph 3.4.2 and all its sub-paragraphs. Particulate emissions monitoring will be required throughout the duration of the construction contract, pursuant to Title 326 of the State of Indiana Administrative Code. The requirements for particulate emissions monitoring are outlined in Paragraph 3.4.3 and all of its sub-paragraphs.

3.4.2 Volatile Emissions Air Monitoring

The primary goal of the volatile emissions air monitoring is to demonstrate that obstruction removal activities do not adversely impact the air quality of the surrounding community. To achieve this goal, the Contractor will implement dedicated atmospheric monitoring at the project site for specific contaminants of concern (COCs), in combination with observance of notification level guidelines. The COCs and notification level concentrations are outlined in Attachment 01355-1, which is included at the conclusion of this section.

The notification levels specified in Attachment 01355-1 are outlined toward the general surveillance of ambient air quality conditions for the surrounding community. An exceedence of notification levels does not necessarily indicate a health or safety hazard to the surrounding community. To this effect, these notification levels are not intended to replace, but rather to supplement, other Contractor air monitoring requirements, such as those for site worker health and safety. In this capacity, the Contractor shall be responsible for compliance with Federal, State, and local regulatory requirements governing the protection of site worker health and safety, as outlined in SECTION 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS.

3.4.2.1 Monitoring Methods

Volatile emissions air monitoring shall take place only during those obstruction removal activities that involve the handling or exposure of sediments from within the Lake George Branch of the Indiana Harbor Canal. Specifically, the implementation of volatile emissions air monitoring will be indicated by any of the conditions listed below:

a. Dredging/excavating sediments from within the Canal
b. Offloading/rehandling sediments obtained from within the Canal
c. Any temporary storage of sediments on site

As part of the Air Quality Monitoring Plan, the Contractor shall list specific activities, including those listed above, in which the potential exists to expose sediment to the atmosphere.

The accurate quantification of COCs is fundamental toward the resolution of these analytes at the concentrations defined by the notification levels. For this reason, volatile emissions air monitoring shall include the use of:

a. high-volume air samplers for the combined measurement of

polychlorinated biphenyls (PCBs; congener-specific) and polycyclic aromatic hydrocarbons (PAHs), and

b. low-volume passivated stainless steel canisters for the measurement of volatile organic compounds (VOCs).

The specific VOCs, PAHs, and PCB congeners which shall be analyzed and evaluated are listed in Attachment 01355-1.

3.4.2.2 Monitoring Schedule

Upon the initiation of any activity that requires volatile emissions monitoring, as described in Paragraph 3.4.2.1 or listed specifically by the Contractor in the Air Quality Monitoring Plan, the Contractor shall conduct volatile emissions monitoring. On each day for which volatile emissions sampling is to take place, at a minimum the contractor shall collect:

a. One (1) 24-hour high-volume sample for the purpose of PAH and PCB analysis for the identified COCs, and

b. One (1) 24-hour low-volume sample for the purpose of VOC analysis for the identified COCs.

3.4.2.3 Equipment Placement

The field instruments designed to measure airborne emissions must be sufficiently portable (for example, mounted on skids or a trailer) so that monitoring can take place at a location immediately adjacent to the obstruction removal project work areas. The volatile emissions monitoring equipment must be located as close as practicable to areas most likely to be impacted by air emissions due to sediment excavation/dredging activities, stockpiling of excavated sediment, or loading and unloading operations. Samples shall be obtained in areas such that engine exhaust from construction equipment has minimal impact the air samples collected. If possible, the Contractor shall place the volatile emissions air monitoring equipment in a generally downwind direction from that of any applicable ongoing obstruction removal activities. The Contractor is responsible for movement the air sampling apparatus to comply with the terms of this paragraph. Approximate locations of the monitoring apparatus shall be shown in the Air Quality Monitoring Plan. Placement of monitoring equipment in locations other that as outlined in the accepted Air Quality Monitoring Plan must be coordinated with the Contracting Officer.

3.4.2.4 Quality Assurance/Quality Control

The Air Quality Monitoring Plan submitted by the Contractor shall also include a Quality Assurance Plan, outlining quality assurance and quality control methods for the sampling and analytical procedures for volatile emissions. The contractor shall refer to the *Indiana Harbor and Canal Dredging and Disposal Project: Ambient Air Monitoring Plan, Volume I*, for guidance toward the outline of a similar, approved, and preferred sampling and analytical plan. This document is provided in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS, under the Paragraph heading "Ambient Air Monitoring Plan".

The laboratory utilized by the contractor for sample extraction and analysis shall be certified by the U.S. Army Corps HTRW Center of Expertise, or explicitly approved by the Contracting Officer. A listing of validated laboratories can be accessed at the following web address:

The Contractor shall pursue the expeditious evaluation of all air monitoring results. The turnaround time for laboratory analysis shall be no longer than seven (7) days for all preliminary data. The final, quality assured and validated data shall be available within an additional 21 days.

The "laboratory reporting limit" is defined as the concentration at which a laboratory can be accurately quantify a particular COC. The reporting limits for each of the chemical subclasses shall be no greater than those prescribed here:

a. VOCs = 1.0 ug m-3;
b. PAHs = 0.01 ug m-3; and
c. PCBs = 0.00001 ug m-3.

Common quality assurance procedures including, but not limited to, the use of field blanks, laboratory blanks, and chemical surrogate compounds to quantify sample recovery, appropriate sample preservation/refrigeration methods, and sample holding times shall be employed during obstruction removal air monitoring. All air monitoring equipment shall be calibrated at a minimum of once every seven (7) days. All quality assurance and quality control measures, including but, not limited to those discussed in this paragraph, shall be specified in the Quality Assurance Plan submitted by the Contractor, as part of the Air Quality Monitoring Plan.

3.4.2.5 Conditions for Notification

To comply with the notification levels outlined in Attachment 01355-1, the Contractor shall ensure that volatile emissions air monitoring takes place upon the initiation of any activity as described in Paragraph 3.4.2.1 or listed specifically by the Contractor in the Air Quality Monitoring Plan.

For each period of five (5) days during which volatile emissions air monitoring is ongoing, (either consecutive or sum of alternate days), the Contractor must check for compliance with notification levels. To this effect, the Contractor shall evaluate the preliminary laboratory results, as soon as they are available, for the five (5) most recent days of volatile emissions sampling. Evaluation of action level exceedance is defined by:

If the average concentration of five (5) consecutive daily samples of any one particular COC exceeds its respective concentration identified in Attachment 01355-1, the Contractor is obligated to:

i. Notify the Contracting officer of the exceedence;
ii. Advise which COCs are in exceedence of the notification level; and
iii. Implement Control Measures as outlined in Paragraph 3.4.2.6.

The average concentration is determined by the mathematical mean of the individual 24-hour concentration results over five (5) consecutive days.

As noted in Attachment 01355-1, each contaminant of concern has a different concentration at which the notification level is attained. However, the procedures for the sampling, evaluation, and implementation of the notification levels are the same.

3.4.2.6 Control Measures for Air Emissions

If, at any time during volatile emissions air monitoring, data indicates that any notification levels have been exceeded, the Contractor shall perform control measures and implement appropriate corrective action to reduce volatile emissions. These controls can include, but are not limited to, the following measures:

a. covering/spray foam application of stockpiles or spoil materials;
b. minimizing time of sediment exposure;
c. minimizing amount of sediment rehandling; and
d. covering of roll-off boxes awaiting transportation.

As part of the Air Quality Monitoring Plan, shall outline possible measures and work practices, in addition to those listed above, that may be implemented to reduce volatile emissions.

3.4.3 Particulate Emissions Air Monitoring

The Contractor will conduct particulate emissions monitoring to confirm that obstruction removal activities do not adversely impact the ambient air quality in the project vicinity. The Contractor must comply with action levels listed within the state of Indiana's fugitive dust regulation, 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements). Particulate emissions include dust particles, aerosols, and other particulate byproducts from construction activities, including diesel emissions. The following particulate matter emission limitations shall apply to all Contractor activities:

a. The average instantaneous opacity of fugitive particulate emissions from unpaved roads and parking lots shall not exceed ten percent (10%).

b. The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

c. The opacity of fugitive particulate emissions from storage piles and exposed areas shall not exceed ten percent (10%) on a six (6) minute average.

d. For material transportation activities:

i. There shall be zero percent (0%) frequency of visible emission observations of material during the inplant transportation of material by truck or rail at any time.

ii. The opacity of fugitive particulate emissions from the inplant transportation of material by front-end loaders and skip hoists shall not exceed ten percent (10%) by averaging three (3) opacity readings taken at five (5) second intervals.

e. Any facility not specified in the above rules shall meet a twenty percent (20%), three (3) minute average opacity standard.

3.4.3.1 Particulate Emissions Monitoring Methods

The Air Quality Monitoring Plan shall detail the Contractor's methods for monitoring particulate emissions. The Contractor shall indicate specific instrumented, visual, or otherwise applicable techniques to be employed to verify compliance with the emission limitations listed in Paragraph 3.4.3.

The Contractor shall provide an outline of necessary equipment, materials, personnel, or ancillary items necessary for the successful implementation of particulate emissions monitoring. The Contractor shall also indicate the frequency and duration of monitoring efforts to ensure compliance with the rules listed in Paragraph 3.4.3. Monitoring for fugitive dust emissions shall be performed every day while obstruction removal construction activities are ongoing at the site.

3.4.3.2 Particulate Emissions Control Measures

The Air Quality Monitoring Plan shall specify measures that will be implemented to prevent and control fugitive particulate emissions. If State of Indiana standards for particulate emissions are exceeded, or if there is a visible dust plume migrating away from the work zone(s), the Contractor shall take steps to control the dust level in the work area, and implement corrective action to reduce future particulate emissions.

The Contractor shall be responsible for controlling particulate emissions at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall implement control measures at excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas. Control measures may include, but are not limited to:

a. covering of trucks;
b. covering of stockpiles; and
c. water/spray foam application.

3.4.3.3 Particulate Emissions Compliance Documentation

The Contractor shall keep the following documentation to show compliance with each of his control measures or control practices:

a. A map or diagram showing the location of all emission sources controlled, including the location, identification, length, and width of roadways.

b. For each application of water or chemical solution to roadways, stockpiles, or construction areas, the following shall be recorded:

i. The name of the agent;
ii. The location of the application;
iii. The application rate;
iv. The total quantity of agent used;
v. If diluted, the percent of concentration used; and
vi. The material data safety sheets (MSDS) for each chemical.

3.4.4 Monitoring Equipment

The Contractor is responsible for supplying all monitoring equipment, materials, and labor for air monitoring activities, including samplers, sampling media, and power for sampling equipment. The Contractor shall provide an outline, as part of the Air Quality Monitoring Plan, of necessary equipment, materials, and ancillary items necessary for the successful implementation of the obstruction removal air monitoring program.

When applicable, real-time monitoring equipment shall be equipped with data-logger or other equivalent data recording system capable of continuous data recording. The coordinates of all air monitoring locations, including

high-volume, low-volume, and real-time measurements, shall be recorded using a Global Positioning System (GPS) device.

Diesel generators shall not be used for powering monitoring equipment if the diesel emissions could contaminate air samples being obtained by the obstruction removal air monitoring, or other air sampling that may be occurring by other contractors. The Contractor is responsible for insuring that diesel generators and ancillary equipment do not interfere with air monitoring.

3.4.5 Data Management

At a minimum, the Contractor shall record, and make available for inspection by the Contracting Officer, information to include:

a. Date, time, GPS location, weather conditions (temperature, cloud cover, precipitation, and approximate wind speed and direction), and brief description of type of ongoing construction activity at the beginning and end of each high-volume and low-volume sample.

b. Date, time, GPS location, weather conditions (temperature, cloud cover, precipitation, and approximate wind speed and direction) for all real-time monitoring events.

c. Meter reading for each real-time emissions monitoring event.

d. Name of monitoring equipment operator for each monitoring event.

e. Documentation of any exceedances of action levels and associated corrective actions.

f. Records related to the calibration and maintenance of all monitoring equipment.

The Contractor shall submit a weekly Air Monitoring Summary, along with analytical results, that includes requirements listed in Paragraph 3.4.8, in an electronic format.

3.4.6 Odors

Odors shall be controlled at all times for all obstruction removal activities, processing and preparation of materials. The odors shall not cause a health hazard and shall be in compliance with State of Indiana regulations and/or local ordinances.

3.4.7 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall use methods and devices to control noise emitted by equipment. Noise levels shall in all cases be in compliance with applicable local codes and regulations.

3.4.8 Burning

Burning will not be allowed on the project site unless specified in other sections of the specifications or authorized in writing by the Contracting Officer. The specific time, location, and manner of burning shall be subject to approval.

3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.5.1 Solid Wastes

Solid wastes (excluding clearing and demolition debris) shall be placed in containers which are emptied on a regular schedule, and the Contractor shall specify the schedule in the environmental protection plan. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas. Solid waste shall not be mixed with the dredged material that is taken offsite for disposal.

3.5.2 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

3.5.3 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

Hazardous wastes are defined in 40 CFR 261, or are as defined by applicable State and local regulations. Hazardous materials are defined in 49 CFR 171 - 178. The Contractor shall, at a minimum, manage and store hazardous waste in compliance with 40 CFR 262. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. The Contractor shall segregate hazardous waste from other materials and wastes, shall protect it from the weather by placing it in a safe covered location, and shall take precautionary measures such as berming or other appropriate measures against accidental spillage. The Contractor shall be responsible for storage, describing, packaging, labeling, marking, and placarding of hazardous waste and hazardous material in accordance with 49 CFR 171 - 178, State, and local laws and regulations. The Contractor shall transport Contractor generated hazardous waste off Government property within 60 days in accordance with the Environmental Protection Agency and the Department of Transportation laws and regulations. The Contractor shall dispose of hazardous waste in compliance with Federal, State and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility. The disposition of Contractor generated hazardous waste and excess hazardous materials are the Contractor's responsibility.

3.5.4 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be accordance with all Federal, State, and local laws and regulations, and must have the approval of the Contracting Officer.

3.5.5 Waste Water

Disposal of waste water shall be as specified below.

a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, waste water generated by the decontamination of vehicles, etc. and entrained water that is associated with any spillage occurring during the transfer of dredged materials from the canal into roll-off boxes, shall not be allowed to enter water ways. The Contractor shall dispose of the construction related waste water off-Government property in accordance with all Federal, State, Regional and Local laws and regulations.

b. For discharge of ground water, the Contractor shall obtain a State or Federal permit specific for pumping and discharging ground water prior to surface discharging. All surface discharge shall be done in accordance with the requirements of the NPDES Construction Site Activity Storm Water Permit. Land application shall be in accordance with all Federal, State, Regional, and/or Local laws and regulations for pumping and land applying ground water.

3.6 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

3.7 NON-HAZARDOUS SOLID WASTE DIVERSION REPORT

The Contractor shall maintain an inventory of non-hazardous solid waste diversion and disposal. The Contractor shall submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that non-hazardous solid waste has been generated. The following shall be included in the report:

a. Debris Disposed = _____ in cubic yards or tons, as appropriate.

b. Debris Recycled = _____ in cubic yards or tons, as appropriate.

c. Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount) = _____ in cubic yards or tons, as appropriate.

3.8 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Any identified existing historical, archaeological, and cultural resources within the Contractor's work area are shown on the drawings. The Contractor shall protect these resources and shall be responsible for their preservation during the life of the Contract. If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.9 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.10 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds.

3.11 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.12 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel and subcontractor personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their

habitat that are known to be in the area. The Contractor shall be responsible for insuring that all Subcontractors are trained in environmental protection. The Contractor shall include a description of the training content and timing in the environmental protection plan.

3.13 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, decontamination facilities, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

3.14 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily reports any problems in complying with laws, regulations, ordinances, and corrective action taken in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

-- End of Section --

Attachment 01355-1

Table 1: Summary of Obstruction Removal Air Monitoring

Contaminant and Collection Method	**Recommended Analytical Method[1]**	**Sample Turn-Around Time**	**Contaminant of Concern (COC)**	**COC Action Level (ug m^{-3})**
Volatile (VOC) Monitoring Low-Volume Canister	EPA Method TO-15	Preliminary Data: 7 Days Validated Data: 28 Days	Benzene	40
			Toluene	3565
			Ethylbenzene	9065
			Xylenes	62510
Semi-volatile (PAH) Monitoring High-Volume Air Sampler	EPA Method **TO-13A** (*Modified*)	Preliminary Data: 7 Days Validated Data: 28 Days	Acenaphthene	1875
			Acenaphthylene	1875
			Anthracene	9376
			Benzo(a)anthracene	4
			Benzo(a)pyrene	0.4
			Benzo(b)fluoranthene	4
			Benzo(k)fluoranthene	35
			Chrysene	355
			Dibenz(a,h)anthracene	0.4
			Fluoranthene	1250
			Fluorene	1250
			Indeno(1,2,3-cd)pyrene	4
			Naphthalene	30
			Phenanthrene	9376
			Pyrene	938
Semi-volatile (PCB congeners) Monitoring High-Volume Air Sampler	EPA Method **TO-13A** (*Modified*)	Preliminary Data: 7 Days Validated Data: 28 Days	PCB 8	-
			PCB 15	-
			PCB 18	-
			PCB 28	-
			PCB 31	-
			PCB 77	-
			PCB 81	-
			PCB 105	-
			PCB 114	-
			PCB 118	-
			PCB 123	-
			PCB 126	-
			PCB 156	-
			PCB 157	-
			PCB 167	-
			PCB 169	-
			PCB 170	-
			PCB 180	-
			PCB 189	-
			Sum PCB Congeners	1
Real-time Particulate Monitoring	Field particulate monitoring unit	Immediate	Particulates and Aerosols	State of IN Regulation

(1) See: *Indiana Harbor & Canal Dredging and Disposal Project: Ambient Air Monitoring Plan, Volume I*

SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1819 L Street, NW, 6th Floor
Washington, DC 20036
Ph: 202-293-8020
Fax: 202-293-9287
Internet: www.ansi.org/

Acoustical Society of America
Standards and Publications Fulfillment Center
P. O. Box 1020
Sewickley, PA 15143-9998
Ph: 412-741-1979
Fax: 412-741-0609
Internet: http://asa.aip.org
General e-mail: asa@aip.org
Publications 3 e-mail: asapubs@abdintl.com
AOK 5/01
LOK 6/00

AMERICAN PETROLEUM INSTITUTE (API)
1220 L St., NW
Washington, DC 20005-4070
Ph: 202-682-8000
Fax: 202-682-8223
Internet: www.api.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9585
Fax: 610-832-9555
Internet: www.astm.org
AOK 5/01
LOK 3/01

AMERICAN WELDING SOCIETY (AWS)
550 N.W. LeJeune Road
Miami, FL 33126
Ph: 800-443-9353 - 305-443-9353
Fax: 305-443-7559
Internet: www.amweld.org
AOK 5/01
LOK 3/01

ASME INTERNATIONAL (ASME)
Three Park Avenue
New York, NY 10016-5990
Ph: 212-591-7722
Fax: 212-591-7674
Internet: www.asme.org
AOK 5/01
LOK 6/00

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
Ph: 617-770-3000
Fax: 617-770-0700
Internet: www.nfpa.org
AOK 5/01
LOK 8/00

U.S. ARMY CORPS OF ENGINEERS (USACE)

Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station
ATTN: Technical Report Distribution Section, Services Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: www.wes.army.mil/SL/MTC/handbook/handbook.htm

Order Other Documents from:
USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
Internet: www.usace.army.mil/publications
or www.hnd.usace.army.mil/techinfo/index.htm
AOK 5/01

LOK 6/00

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
700 Pennsylvania Avenue, N.W.
Washington, D.C. 20408
Phone: 800-234-8861
website: nara.gov

Order documents from:
Superintendent of Documents
U.S.Government Printing Office
732 North Capitol Street, NW
Washington, DC 20401
Mailstop: SDE
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
E-mail: gpoaccess@gpo.gov
AOK 5/01

-- End of Section --

SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(1988) Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

1.2 MEASUREMENT AND PAYMENT

Separate or direct payment will not be made for providing and maintaining an effective quality control program, and all costs associated therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Quality Control Plan;G,CO

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than fifteen (15) days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first fifteen-(15) days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC plan shall include, as a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC system manager who shall report to the project manager or someone higher in the Contractor's organization. Project manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities. Copies of these letters will also be furnished to the Contracting Officer in the Quality Control Plan.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents. These procedures shall be in accordance with Section 01330, SUBMITTAL PROCEDURES.

e. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. The Contracting Officer will approve laboratory facilities in accordance with paragraph 3.7, TESTS.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. Different trades or disciplines could identify it, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Contracting Officer and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 CQC System Manager

The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. This CQC System Manager shall be on the site at all times during construction and will be employed by the Contractor, except as noted in the following. An alternate for the CQC System Manager will be identified in the plan to

serve in the event of the system manager's absence. Period of absence may not exceed two (2) weeks at any one time, and not more than thirty (30) workdays during a calendar year without designating a new CQC manager. The requirements for the alternate will be the same as for the designated CQC manager.

3.4.2 CQC Organizational Staffing

The Contractor shall provide a CQC staff that shall be at the site of work at all times during progress, with complete authority to take any action necessary to ensure compliance with the contract.

3.4.2.1 CQC Staff

Following are the minimum requirements for the CQC staff. These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during construction. The actual strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the Contractor will add additional staff at no cost to the Government. This listing of minimum staff in no way relieves the Contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2.2 CQC System Manager

The CQC system manager shall be an experienced construction person with a minimum of three (3) years experience in related work. The CQC system manager shall be assigned as system manager and shall have no other duties in addition to quality control.

3.4.2.3 Supplemental Personnel

A staff shall be maintained under the direction of the CQC system manager to perform all QC activities. The staff must be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities. The QC plan will clearly state the duties and responsibilities of each staff member.

3.4.3 Organizational Changes

The Contractor shall obtain Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

3.4.4 Construction Quality Management for Contractors.

If the contract award is in excess of 1 million dollars, the CQC system manager is required to have a current certificate of completion for the Corps of Engineers course, "Construction Quality Management for Contractors". If the CQC manager does not have a current training certificate, then he/she will be required to obtain the training within 60 days of the contract "Notice to Proceed". The training will take about 16 hours to complete. This course will be offered at the U.S. Army Corps of Engineers, Chicago District Office, 111 N. Canal Street, Suite 600,

Chicago, Illinois. It is the Contractor's responsibility to arrange a time with the Construction/Operation Division for the training. Point of contract for arranging this training will be Leon Turner at 312-846-5494 or Dick Albert at 312-846-5490.

3.5 SUBMITTALS

Submittals shall be as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and will be keyed to the proposed construction sequence. The controls shall include at least three phases of control to be conducted by the CQC system manager for all definable features of work, as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work and shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract plans.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. A check to assure that provisions have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawing or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. The Government shall be notified at least forty-eight (48) hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC system manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the

preparatory phase actions shall be documented by separate minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall complete the attached Preparatory Phase Checklist. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of completed work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels if appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least twenty-four (24) hours in advance of conducting the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. The Contractor shall complete the attached Initial Phase Checklist. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases may be conducted on the same definable features of work as determined by the Contracting Officer if the quality of on-going work is unacceptable; or if there are changes in the applicable QC staff or in the on-site production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, will be recorded on the Quality Control report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing rock shall meet criteria detailed in ASTM D 3740.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of $2,000.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control

testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Contracting Officer, unless otherwise specified or directed.

3.8 COMPLETION INSPECTION

At the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC system manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph, DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC system manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.9 DOCUMENTATION

The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form and shall include factual evidence that required quality control activities and/or tests have been performed, including but not limited to the following:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed to date, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.

e. Material received with statement as to its acceptability and storage.

f. Identify submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. List instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

k. As-built contract drawings consisting of one (1) full size set of contract drawings marked in red to depict all conditions differing from the original plans.

l. Shop drawings consisting of three (3) complete sets of prints as finally approved.

m. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within twenty-four (24) hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed unless no work was performed as a result of adverse weather. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

These records shall be recorded on the forms illustrated in Attachments 1 through 3, attached hereto.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor at the site of the work, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

DAILY CONSTRUCTION QUALITY CONTROL MANAGEMENT REPORTS

DATE_____ REPORT NO._____

CONTRACTOR_____ CONTRACT NUMBER_____

PROJECT NAME_____LOCATION_____

WEATHER: TYPE___ TEMP.MAX___MIN___RAIN FALL___GAGE READING__

EMPLOYEES: SUPV__ SKILLED__ LABORERS__ LENGTH OF SHIFT__HR__

NAME (PRIME OR SUBCONTRACTOR) AND AREA OF RESPONSIBILITY
WORK RESPONSIBILITY:

a.

b.

c.

d.

e.

WORK PERFORMED TODAY: LOCATION, DESCRIPTION, QUANTITY AND RESPONSIBILITY BY LETTER REFERENCE (Relate to item on the Progress Chart or CPM)

INSPECTION: (Description of Inspection and Location. Include off-site Materials and Equipment Inspection)

a. PREPARATORY PHASE:

b. INITIAL PHASE:

c. FOLLOW-UP PHASE:

RESULTS OF INSPECTION (Include Findings, Deficiencies Observed and Corrective Action)

ATTACHMENT 1
PAGE 1 OF 2

DAILY CONSTRUCTION QUALITY CONTROL MANAGEMENT REPORT (CONTINUED)

TEST PERFORMED: Type, Location, Results Including Failure & Remedial Action (Attach copy of test report or notation when it will be furnished)

WORK ITEMS BEHIND SCHEDULE: Reason, Effect on Progress Schedule and Action Taken.

JOB SAFETY: (Report conditions, Deficiencies, Corrective Action & Results)

REMARKS: List Attachment and Other Management Actions Taken To Assure Quality Construction.

IF INSPECTION & RESULTS ARE NOT LISTED THEN IT IS ASSUMED THAT QUALITY CONTROL IS NOT BEING IMPLEMENTED.

The above report is complete and correct and all material, equipment, work performed, and tests conducted are in strict compliance with the terms of the contract except as noted.

_____
CONTRACTOR'S APPROVED REPRESENTATIVE SIGNATURE

ATTACHMENT 1
PAGE 2 OF 2

PREPARATORY PHASE CHECKLIST

Contract No._____ Date Preparatory Held:_____
Title:_____ Spec Section_____
Drawing No.(a):_____

Definable Feature of Work: _____

_____

A. PERSONNEL PRESENT

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

(List additional personnel on reverse side)

B. DRAWINGS AND SPECS:

I. Has each spec paragraph, contract drawing, and shop drawing been studied: YES____ NO____

II. Do all parties have up-to-date drawings and specifications: YES____ NO____

C. SHOP DRAWINGS INVOLVED:

	Transmittal Description	Trans. #	Action Code
1.			
2.			
3.			

ATTACHMENT 2
PAGE 1 OF 3

D. MATERIALS:

I. Are all materials on hand? YES___ NO___

II. Have all materials been checked for contract compliance against approved shop drawings: YES___ NO___

III. Items not on hand or not in accordance with transmittals (If not on hand, check during initial phase)

1. _____

2. _____

3. _____

4. _____

E. Test required in accordance with contract requirements:

Test/Paragraph Frequency

1. _____

2. _____

3. _____

4. _____

5. _____

F. ACCIDENT PREVENTION: Has Hazard Analysis been completed? YES____ NO____ If yes, attach a copy, if no, explain:

_____

_____

_____

_____

ATTACHMENT 2
PAGE 2 OF 3

G. EQUIPMENT REQUIRING OPERATIONAL CHECK:

1. _____

2. _____

3. _____

4. _____

H. WORKMANSHIP: Have procedures for accomplishing work been reviewed with the Contractor Quality Control Representative and other appropriate people?
YES____ NO____

I. PREVIOUS WORK: Has all preliminary work been accomplished in accordance with contract requirements and is this feature of work ready to start?
YES____ NO____

Explain any problems: _____

_____

_____

_____

_____

_____

J. OTHER COMMENTS: _____

_____

_____

_____

_____

_____

_____
CONTRACTOR QUALITY CONTROL REPRESENTATIVE

_____
GOVERNMENT QUALITY ASSURANCE REPRESENTATIVE

ATTACHMENT 2
PAGE 3 OF 3

INITIAL INSPECTION CHECKLIST

CONTRACT:_____DATE:_____

Description and Location of Work Inspected:_____

_____

Spec. Sec._____

REFERENCE CONTRACT DRAWINGS:_____

A. PERSONNEL PRESENT:

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

B. Materials being used are in strict compliance with the contract plans and specifications: YES____ NO____

If Not, explain _____

_____

_____

ATTACHMENT 3
PAGE 1 OF 2

C. PROCEDURE AND/OR WORK METHODS WITNESSED ARE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS: YES____ NO____

If not, explain: _____

_____

_____

D. WORKMANSHIP IS ACCEPTABLE: YES____ NO____ STATE AREAS WHERE IMPROVEMENT IS NEEDED: _____

_____

_____

E. SAFETY VIOLATIONS AND CORRECTIVE ACTION TAKEN: _____

_____

_____

_____

_____

_____
CONTRACTOR QUALITY CONTROL REPRESENTATIVE

ATTACHMENT 3
PAGE 2 OF 2

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Site Plan; G,DC

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

1.3 USE OF UTILITY SERVICES

1.3.1 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer.

1.3.2 Telephone, Water and Electricity

The Contractor shall make arrangements and connect, maintain, and pay all costs for telephone, water and electricity use.

1.4 PROJECT SIGN AND PROJECT SAFETY SIGN

1.4.1 Project and Safety Signs

The requirements for the signs, their content, and location shall be as specified in SECTION 01580, PROJECT SIGN AND SAFETY SIGN.

1.5 PROTECTION AND MAINTENANCE OF TRAFFIC **(needed???)**

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.5.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.5.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.6 CONTRACTOR'S TEMPORARY FACILITIES

(TEMP NOTE: REMOVED REQM'T FOR FENCING AROUND TRAILER/STORAGE AREA BASED ON ON D. ANDERSON'S CMT 477716 FOR IHC OBSTRUCTION REMOVAL PRJ.)

1.6.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office

facilities within the construction area.

1.6.2 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on site.

1.6.3 Security Provisions

The contractor shall provide a security guard at the entrance of the site during work hours. (**TEMP NOTE: ADDED SECURITY GUARD TO IHC OBSTRUCTION REMOVAL PRJ BASED ON D. ANDERSON'S CMT 477716.)** The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the site. Adequate outside security lighting shall be provided at the Contractor's temporary facilities.

1.7 GOVERNMENT FIELD OFFICE - Not Used

1.8 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.9 RESTORATION OF STORAGE AREA - Not Used

(TEMP NOTE: REMOVED THIS PARA BASED ON J ZUECHER'S CMT 480923 ON OBS RML PRJ)

-- End of Section --

SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASME INTERNATIONAL (ASME)

ASME B30.3	(1996) Construction Tower Cranes
ASME B30.5	(2000) Mobile and Locomotive Cranes
ASME B30.8	(2000) Floating Cranes and Floating Derricks
ASME B30.22	(2000) Articulating Boom Cranes

THE NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response

U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1998) Portable Fire Extinguishers
NFPA 51B	(2003) Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 241	(2000) Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation;

submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G
Activity Hazard Analysis (AHA); G
Crane Critical Lift Plan; G
Crane Work Plan; G
Proof of Qualification for Crane Operators; G

SD-06 Test Reports

Accident Reports
Monthly Exposure Reports
Regulatory Citations and Violations
Crane Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

SD-07 Certificates

Confined Space Entry Permit

Submit one copy each of permit attached to each Quality Control Report. (If required)

Certificate of Compliance (Crane)

Third Party Certification of Barge-Mounted Mobile Cranes (if any)

1.3 DEFINITIONS

a. Certified Industrial Hygienist (CIH). An individual who is currently certified as a CIH by the American Board of Industrial Hygiene. in respect of qualifications and authority.

b. Safety Health Manager. A Certified CIH or a Certified Safety Professional (CSP) with a minimum of three years experience in developing and managing safety and occupational health programs at construction projects.

c. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

d. Site Safety and Health Officer (SSHO). The qualified or competent person who is responsible for the on-site safety and health required for the project.

e. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

f. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

g. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

h. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

i. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work;

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

j. "USACE" property and equipment specified in EM 385-1-1 should be interpreted as Government property and equipment.

k. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

The Government does not consider this contract to be a hazardous waste site cleanup project and therefore does not require OSHA's HAZWOPER standard (29 CFR 1910.120/29 CFR 1926.65) to be applied to the Contract. The sediments that have to be removed in order to remove the obstructions are contaminated. A profile of the contaminants in the sediments is included

in this specification package. Regardless of HAZWOPER application, the contractor is expected to take the steps necessary to protect employees from unacceptable chemical exposure while construction work is performed. Protective measures for chemical exposure and all other hazards expected while performing this project are to be addressed in the Accident Prevention Plan (APP) and Activity Hazard Analyses (AHAs) for the project.

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with EM 385-1-1, and the following federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the Contracting Officer for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements and perform the following duties:

- Possess 3 years experience implementing safety and occupational health programs on construction projects.

- Have the knowledge and experience to function on site as the competent person for the following: Respiratory Protection, Excavation; Fall protection; Hazardous energy; Confined space; Health hazard recognition, evaluation and control; personal protective equipment and clothing including respirators.

- Shall be assigned to the site on a full-time basis for the duration of field activities to oversee safety and occupational health requirements for the project.

- Perform occupational exposure monitoring as indicted in the APP and/or AHAs and as directed by the SHM.

- Have the authority to enforce APP and AHA requirements, stop work if unacceptable safety and occupational health conditions exist and take the necessary action to correct unacceptable safety and occupational health conditions.

- Assist the SHM with development of an on-site training program and conduct both initial and periodic on-site safety and occupational health training sessions.

- Perform daily safety and occupational health inspections and document results on the Daily Safety Inspection Log in accordance with 29 CFR 1904. If necessary, develop accident reports. Safety inspection logs shall be attached to the Contractors' daily quality control report.

- Oversee and provide input to the development of AHAs as necessary during the course of the project.

- Serve as a member of the contractor's quality control staff in a safety and occupational health capacity and, work together with the SHM, site superintendent and the Contracting Officer to correct (if necessary) and improve safety and occupational health requirements during the course of the project.

- Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.

- Maintain applicable safety reference material on the job site.

- Attend the pre-construction safety conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.

- Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.

- Ensure sub-contractor compliance with safety and health requirements.

1.6.1.2 Safety and Health Manager (SHM)

The SHM shall be a CIH or CSP with a minimum of 3 years experience developing and managing safety and occupational health programs at construction project and shall have documented experience developing worker exposure assessment programs and managing personal protective equipment programs including respirators.

The SHM shall:

- Develop, and oversee implementation of the (Accident Prevention Plan (APP) and Activity Hazard Analyses (AHAs) for the project

- Sign and date the APP and AHAs to indicate approval

- Visit the site as needed to audit effectiveness of the APP and active AHAs.

- Support the SSHO by evaluating exposure monitoring results and use of PPE or implementation of engineering controls.

- Develop and maintain together with the SSHO a safety and occupational health training program to provided to on-site employees. Assist the SSHO with on-site training as necessary.

- Coordinate modifications to the APP and AHAs with the SSHO, site superintendent, and the Contracting Officer

- Review daily inspection reports and accident reports

- Serve as a member of the contractor's quality control staff.

1.6.1.3 Crane Operators

Crane operators shall meet the requirements in EM 385-1-1, Section 16 and Appendix G. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacitates of 50,000 pounds or greater, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or and organization that tests and qualifies crane operators. Proof of current qualification for crane operators shall be provided.

1.6.2 Meetings

1.6.2.1 Preconstruction Safety Conference

a. The Contractor will be informed, in writing, of the date of the preconstruction safety conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's Accident Prevention Plan (APP) before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction safety conference. This includes the project superintendent, SSHO, SHM and quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP and AHAs will be brought to the attention of the Contractor at the preconstruction safety conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

1.6.2.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of

attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.2.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The SHM shall prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below at paragraph

The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site Safety Health Manager (SHM) and the safety and health officer (SSHO).

Submit the APP to the Contracting Officer 15 calendar days prior to the

date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions. Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SHM, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of SSHO and SHM.

b. Health Hazard Control Program. The SHM shall develop a Health Hazard Control Program that covers applicable portions of EM 385-1-1, Section 6 and incorporate the program into the project APP. The program shall ensure that employees, on-site Government representatives, and others, are protected from exposure to the chemicals will be disturbed and handled by the construction activities or that are brought on to the site to aid in project execution.

c. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of EM 385-1-1, paragraph 16.c.18. and the following:

(1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.550(g).

(2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

d. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

e. Fall Protection and Prevention (FP&P) Plan. Develop the plan if applicable to site activities. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

f. Training Records and Requirements. List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

g. Crane Work Plan. The contractor shall provide a crane work plan to the Contracting Officer for acceptance. The crane work plan shall include the specific model of each crane and a drawing identifying their locations (exact), the dimensions, wheel sizes, number of wheels, wheel spacing, tire pressure(s), number of axles, axle spacing, minimum wheel load to be exerted during operations and maximum outrigger load to be exerted during operations. The Contractor shall allow at least 10 working days for acceptance/non-acceptance of the crane work plan. No crane operations shall begin prior to written acceptance of the crane work plan by the Government.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. AHAs will be developed by the contractor personnel or subcontractor personnel who are most familiar with the construction activity to be performed. AHA will be developed for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used,

inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall protection methods used. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.10 DISPLAY OF SAFETY INFORMATION

Within 3 calendar days after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

a. Map denoting the route to the nearest emergency care facility.

b. Emergency phone numbers.

c. Copy of the most up-to-date APP.

d. Current AHA(s).

e. OSHA 300A Form.

f. OSHA Safety and Health Protection-On-The-Job Poster.

g. Confined space entry permit.

h. Hot work permit.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

For recordable injuries and illnesses, and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than $2,000, or any weight handling equipment accident. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.13.5 Crane Reports

Submit crane inspection reports required in accordance with EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.14 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be requested from the the SSHO CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All

extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site for a minimum of 30 minutes after completion of the task or as specified on the hot work permit.

a. The storage of combustible supplies shall be a safe distance from structures.

b. All portable electric devices (saws, sanders, compressors, extension chord, lights, etc.) shall be disconnected at the close of each workday. When possible, the main electric switch in the facility shall be deactivated.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

The Contractor shall provide permanent signs integral to or securely attached to access covers for new permit-required confined spaces. Signs wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in bold letters a minimum of one inch in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 5 feet.

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard shall prevail.

3.1.1 Unforeseen Hazardous Material

If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 15 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 EQUIPMENT

3.3.1 Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

d. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

e. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.

f. The Contractor shall comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.

g. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.

h. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.

i. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.

j. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.

k. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

l. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at

all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.

m. All employees shall be kept clear of loads about to be lifted and of suspended loads.

n. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.

o. The Contractor shall use cribbing when performing lifts on outriggers.

p. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

q. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

r. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.

s. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

t. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

u. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.3.2 Equipment and Mechanized Equipment

a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.4 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall

inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. The competent person shall perform soil classification in accordance with 29 CFR 1926.

3.4.1 Shoring Systems

Trench, shoring systems (Section 02250 SHORING SYSTEMS) must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data.

-- End of Section --

SECTION 01580

PROJECT SIGN AND SAFETY SIGN

PART 1 GENERAL

1.1 SCOPE

The work covered by this Section consists of providing the fabrication, erection and maintenance of one project sign and one safety sign. The items furnished in accordance with this Section shall be furnished within 10 days after Notice to Proceed and shall be maintained in good condition throughout the construction period. All items will remain the property of the Contractor and shall be removed at the end of the contract.

1.2 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP 310-1-6-80	Graphic Standards Manual
EP 310-6a-85	Sign Standards Manual
EP 310-6b-85	Sign Standards Manual
EM-385-1-1	Safety and Health Requirements Manual,Sections 4,11

1.3 MEASUREMENT AND PAYMENT

1.3.1 MEASUREMENT - NOT USED

1.3.2 PAYMENT

No separate or direct payment will be made for the items listed in this Section, and such work will be considered as a subsidiary obligation of the Contractor.

PART 2 PRODUCTS

2.1 CONSTRUCTION PROJECT SIGNS

a. Two (2) construction project signs shall be provided at locations coordinated with the Contracting Officer. The signs include one (1) Project Identification Sign and one (1) Safety Performance Sign.

b. The construction project sign panels will each be electronically printed as a single decal and mounted on single sided vinyl faced White Board as described in Paragraph "MATERIALS" below.

c. An electronic file will be furnished by the Contracting Officer containing the layouts of the construction project signs. The electronic layouts will be Adobe Illustrator files (compatible with version 6.0 or newer) in Macintosh format. All components of the layout design contained within the files will be provided in vector format.

2.1.1 PROJECT IDENTIFICATION SIGN

One (1) project identification sign constructed in accordance with Plate 01580-1 and applicable publications shall be provided by the Contractor.

2.1.2 SAFETY PERFORMANCE SIGN

a. One (1) safety performance sign constructed in accordance with Plate 01580-2 and applicable publications shall be provided by the Contractor.

b. The safety performance record shall be updated daily.

2.1.3 MATERIALS

The following are requirements for all of the construction project signs.

a. The sign faces shall be electronically printed on white non-reflective vinyl decals four (4) mil thick.

b. The sign face decals shall be mounted on panels of 1/2" thick White Board with single-sided vinyl facing. The entire circumference of the sign panels will be sealed and protected with white vinyl trim cap.

c. A protective overlaminate film shall be applied over the sign face decals capable of minimizing the deteriorating effects of ultraviolet radiation and providing additional protection against weathering and application of grafitti.

d. 2"x4" struts will be installed between the 4"x4" support posts to reinforce the top and bottom edges of the sign panels.

e. Wood material for the posts shall be preservative treated, structural grade Douglas Fir or No. 1 Southern Pine, or better. All other wood members shall be of well seasoned, kiln dried, clear redwood, bald cypress, red cedar, Douglas fir, spruce, tulip poplar, or white pine. The lumber materials shall be free of splits, wane, and loose knots or pitch pockets. All members of the sign shall be fastened with screws or bolts of type, size, number, and spacing to provide rigid construction and neat appearance. If the vertical supports system does not rigidly support the sign due to local soil conditions and/or wind loading additional bracing of the sign supports shall be provided. This additional bracing shall be composed of 2"X4" bracing bolted to the inside face of each 4"x4" support post and firmly anchored to the ground behind the sign. This additional bracing is not required to be treated lumber.

f. All bolts shall be 0.375" diameter and 4" long Allen head bolts, threaded to match T-nuts.

PART 3 EXECUTION

3.1 INSTALLATION

The Contractor shall affix the panels to the posts with the Allen head bolts prior to erection of the signs, including drilling counter-sunk .375 inch diameter holes in the posts to match the T-nut locations. The Contractor shall take all precautions necessary to protect the faces of the signs from damage during assembly and construction. The signs shall be installed upon commencement of the work under this contract. The location

in which each sign is to be installed shall be cleared and leveled to facilitate the installation of, and provide easy visual contact with, the signs. Installation and positioning of the sign plate and posts shall be as indicated on Plates 01580-1 and 01580-2, found at the end of this section. Excavation and backfilling of the holes for posts and installation of the posts, braces, and stakes shall be such that signs are installed plumb and level.

3.2 MAINTENANCE

The Contractor shall maintain the signs in good condition and the sign site in a neat condition throughout the construction period.

3.3 QUALITY CONTROL

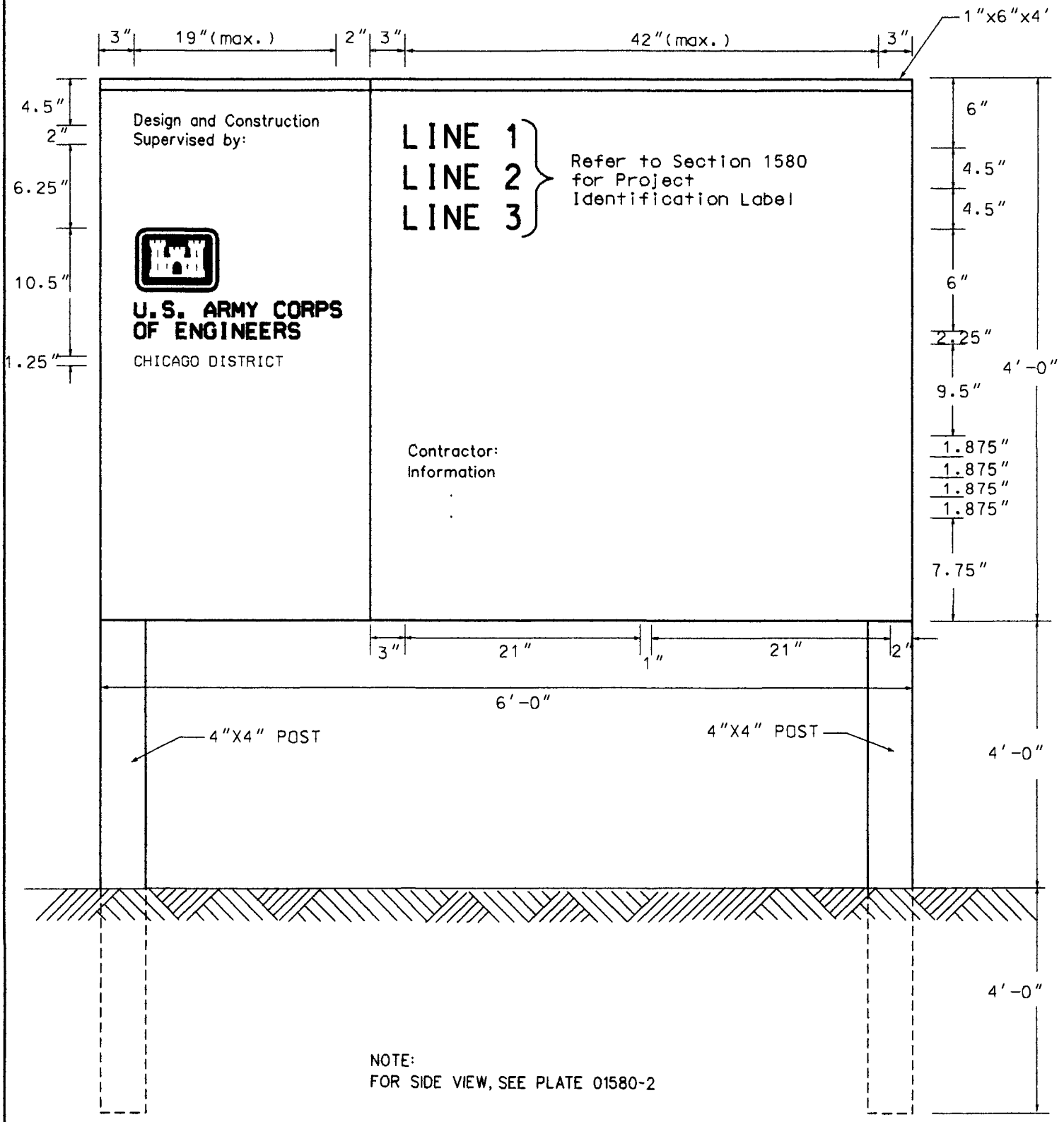
The Contractor shall establish and maintain a quality control system for all operations performed under this section to assure compliance with contract requirements. The Contractor shall maintain records of his quality control for all operations performed, including, but not limited to, the following:

a. Temporary field office.
b. Quality of materials and workmanship.
c. Overall appearance of signs and site.
d. Observance of safety regulations.

3.3.1 RECORDS

A copy of the record of inspections, as well as records of any corrective action taken, shall be furnished to Contracting Officer in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

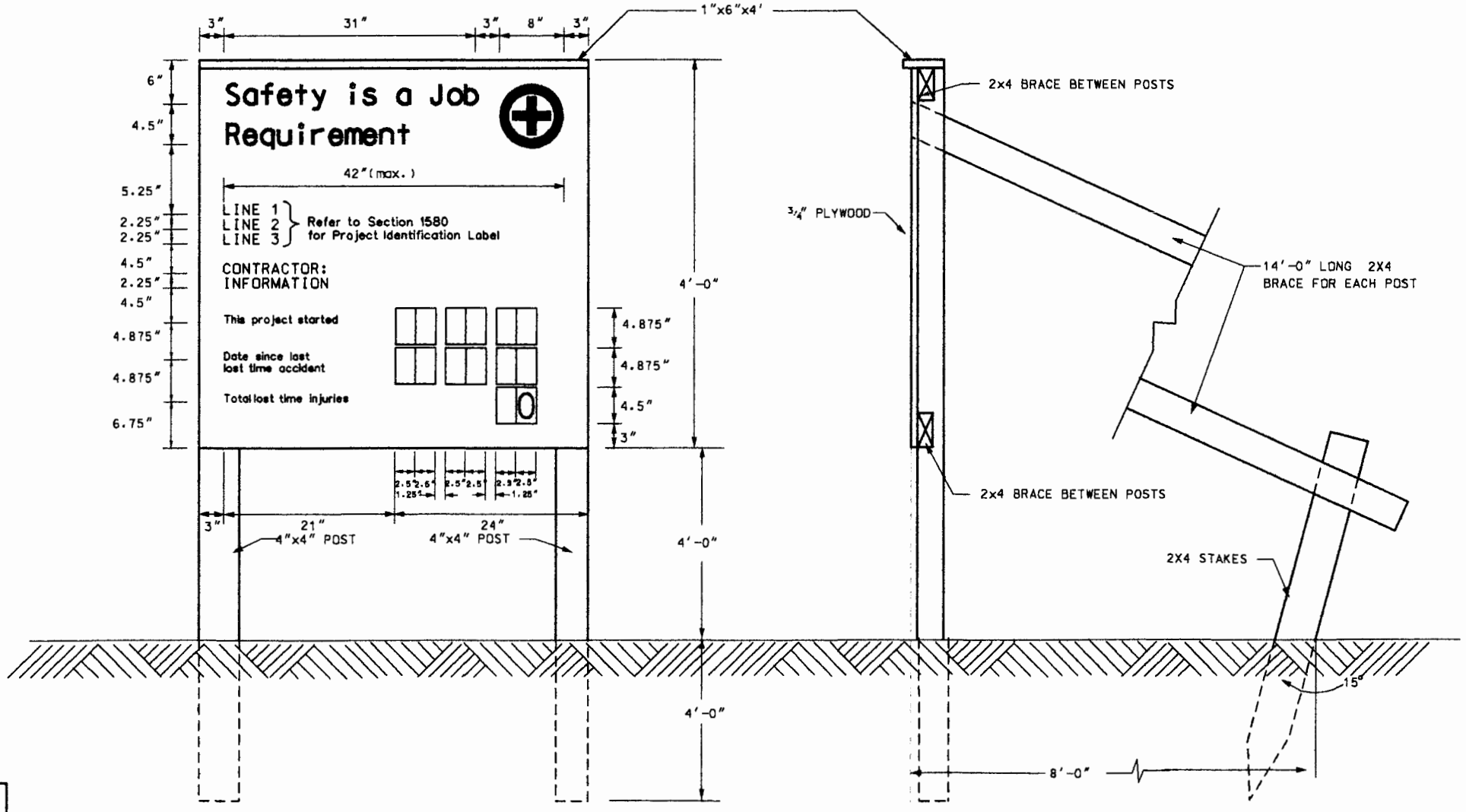
-- End of Section --



NOTE:
FOR SIDE VIEW, SEE PLATE 01580-2

GENERIC PROJECT IDENTIFICATION SIGN

NOT TO SCALE



GENERIC SAFETY PERFORMANCE SIGN

NOT TO SCALE

PLATE 01580-2

SECTION 02115

REMOVAL AND DISPOSAL OF UNDERGROUND PIPES

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN PETROLEUM INSTITUTE (API)

API RP 1604	(1996) Closure of Underground Petroleum Storage Tanks
API PUBL 1628	(1996) Assessment and Remediation of Underground Petroleum Releases

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
40 CFR 280	Owners and Operators of Underground Storage Tanks

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.2 DESCRIPTION OF WORK

Since the ECI property is a former petroleum refinery site, it is possible that abandoned underground petroleum transmission piping, or other abandoned petroleum transportation facilities will be encountered during this project. In general, these features will be excavated, cleaned, crushed, and stockpiled on site. Off-site disposal of underground storage tanks or related objects is not required for this project. Underground transmission piping may still contain liquid petroleum products. Pipe contents will be collected and disposed of off-site. It is the responsibility of the Contractor to determine whether any underground storage tanks pipes encountered on the project site are registered tanks in the State of Indiana. Registered tanks must be handled in accordance with Indiana regulations.

1.2.1 Pipe Capping

The work to cap and grout pipe to remain, remove pipes as shown on plans, and dispose of piping that was removed; including but not limited to dewatering (if approved), laboratory testing, providing reports which are required by regulatory agencies, and backfilling.

1.2.2 Regulations

Perform work in accordance with local, State, and Federal regulations and 40 CFR 280.

1.3 SUBMITTALS

Submit the following in accordance with SECTION 01330, SUBMITTAL PROCEDURES.

SD-01 Preconstruction Submittals

Site safety and health plan;G,HE*

Describe safety and health plan and procedures as related to underground tank removal and pipe removal, and as related to operations associated with petroleum contaminated soils and water. Furnish the name and qualifications based on education, training, and work experience of the proposed Site Safety and Health Officer. Also, to be reviewed by Corps' Safety Office.

Piping removal and disposal plan;G,DC

Spill and discharge control plan;G,HE

SD-06 Test Reports

Laboratory testing reports;G,HE

The reports should include location of dredged material and associated OVA/FID (organic vapor analyzer/flame ionization device) readings, TPH (total petroleum hydrocarbons), and BTEX (benzene, toluene, ethylbenzene, and xylene), and TCLP (toxicity characteristic leaching procedure) sampling and test results. If BTEX indicates gasoline, then provide TCLP results.

SD-07 Certificates

Qualifications;G

SD-11 Closeout Submittals

Inspection permits, and other permits;G

Required for underground pipe removal.

Identification of pipe removed and disposed of;G

Submittal to include site map showing location of piping.

Starting and ending dates of reporting period;G

Closure report;G

Incorporate reports, records, and data into a single binder with the title "SITE ASSESSMENT REPORT" on the cover of the binder.

1.4 QUALIFICATION (CONTRACTOR EXPERIENCE)

Submit data for approval showing that the pipe removal Contractor,

subcontractors, and personnel employed on the project have been engaged in removal, transportation, and disposal of underground tanks and associated piping including removal work in the water, are familiar with and shall abide with the following:

a. API RP 1604.

b. 40 CFR 280 and State and local regulations and procedures.

c. Applicable safety rules and regulations.

d. Use of equipment and procedures for testing and vapor-freeing tanks.

e. Handling and disposal of types of wastes encountered in underground tank and pipe removal including disposal of underground tanks and associated piping.

f. Excavation, testing, and disposal of petroleum contaminated soils, liquids, and sludge.

g. Provide documentation that tank removers are certified if locality of project has this requirement.

In addition, furnish data proving experience on at least three prior projects which included types of activities similar to those in this project. Provide project titles, dates of projects, owners of projects, point of contact for each project, and phone numbers of each point of contact.

1.5 COMPLIANCE

Comply with applicable local, State, and Federal laws regulations, procedures, and 40 CFR 280.

1.6 PIPING REMOVAL AND DISPOSAL PLAN

Describe methods, means, equipment, sequence of operations and schedule to be employed inspecting, cutting, capping, handling, and transport of pipes to on-site location. Fifteen days before beginning pipe removal work, submit to the Contracting Officer for approval the piping removal and disposal plan that describes phases of dealing with cutting, capping and removal of the pipes in the canal, including safety precautions and requirements.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 SITE SAFETY AND HEALTH PLAN (SSHP)

Furnish safety, health, and accident prevention provisions and develop a Site Safety and Health Plan (SSHP). The SSHP shall incorporate the requirements of 29 CFR 1910 and EM 385-1-1. Site work shall not start until the SSHP is approved by the Contracting Officer.

3.2 SPILL AND DISCHARGE CONTROL PLAN

Develop, implement, and maintain a comprehensive spill and discharge control plan. The plan shall provide contingency measures for potential spills and discharges from handling and transportation of contaminated soils and water. A possible source of guidance for assessment and remediation is API PUBL 1628.

3.3 PERSONNEL PROTECTION

Furnish appropriate personal safety equipment and protective clothing to personnel and ensure that safety equipment and protective clothing is kept clean and well maintained. Furnish three clean sets of personal protective equipment and clothing for use by the Contracting Officer or official visitors as required for entry into the EZ.

3.4 RESPIRATORY PROTECTION PROGRAM

Develop a respiratory protection program, addressing respirator usage and training, in accordance with 29 CFR 1910 and EM 385-1-1.

3.5 DECONTAMINATION

Decontaminate or properly dispose of personal protective equipment and clothing worn in contaminated areas at the end of the work day. The SSHO shall be responsible for ensuring that personal protective clothing and equipment are decontaminated before being reissued.

3.6 FIRST AID AND EMERGENCY RESPONSE EQUIPMENT AND PROCEDURES

Provide appropriate emergency first aid equipment for treatment of exposure to site physical and chemical hazards. Provide and post a list of emergency phone numbers and points of contact for fire, hospital, police, ambulance, and other necessary contacts. Provide and post a route map detailing the directions to the nearest medical facility.

3.7 IGNITION SOURCES

Do not permit ignition sources in the EZ and CRZ.

3.8 PERSONNEL AND EQUIPMENT DECONTAMINATION

Decontaminate personnel and equipment before exiting the work zones.

3.9 WASTE DISPOSAL

The SSHP shall detail the practices and procedures to be utilized to dispose of wastes that will not be stored on-site. Upon completion of the project, certify that equipment and materials were properly decontaminated prior to being removed from the site.

3.10 EMERGENCY RESPONSE REQUIREMENTS

Furnish emergency response and contingency plan in accordance with 29 CFR 1910. In an emergency, take action to remove or minimize the cause of the emergency, alert the Contracting Officer, and institute necessary measures to prevent repetition of the emergency. Equip site-support vehicles with route maps providing directions to the medical treatment facility.

3.11 UNFORESEEN HAZARDS

Notify the Contracting Officer of any unforeseen hazard or condition which becomes evident during work.

3.12 DREDGING

Refer to SECTION 02325 DREDGING.

3.13 REMOVAL OF UNDERGROUND PIPING

3.13.1 Preparation

API RP 1604. Contractor shall expose and verify all pipes prior to cutting and capping operation. Contractor shall remove the fill pipe, gage pipe, vapor recovery truck connection, submersible pumps, drop tube, cap or remove non-product piping except vent piping, plug tank openings so that vapors will exit through vent piping during the vapor-freeing process and other preparation to ensure the safety of this operation.

3.13.2 Cutting Pipe

The contractor shall make a clean cut to the pipes identified to be cut and capped. The pipes shall be capped and grouted as described in the Obstruction Cap, Plug, and Closure Requirements paragraph.

3.13.3 Obstruction Cap, Plug, and Closure Requirements

All pipes and tiles shall be plugged, capped, grouted and/or closed to eliminate the possible inflow of petroleum or other contaminates transited by the piping to the canal. For all size pipes, mechanical plugs shall be used. As a minimum, the mechanical plug shall have a natural rubber "O" ring, which can be expanded to the inside diameter of the pipe using a wing nut. After the pipes are capped, the contractor shall not backfill dredged area until the pipes are dewatered and grouted. The available information on the utilities and pipelines is included in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS. The Contractor shall develop details for the plugs and concrete bulkhead, and submit it to the Contracting Officer for approval prior to dredging. Any fluids (oils, fuels etc.) that are found in the abandoned utility lines can be placed in the roll-off boxes with the dredged materials.

3.14 INSPECTIONS

Arrange for and perform required inspections. Provide copies of inspections to Contracting Officer.

3.15 CLOSURE REPORT (SITE ASSESSMENT REPORT)

Provide the Contracting Officer a Site Assessment Report in a single binder notebook which shall contain a collection of reports, records, starting and ending dates of reporting period, inspections, documentation, and data as follows:

a. Complete UST Notification Form (within 30 days of closure).

b. Description of work, including removal procedures, number of pipes removed, identification of pipes removed and disposed of, cubic yards of excavated soil, location of disposal sites, and dates of

excavation.

c. Site plan, including location of tanks and piping, limits of excavation, sampling points, results of excavation, and depths.

f. Certifications required by implementing agency.

3.16 SPILLS OF CONTAMINATED SOILS

Use appropriate vehicles and operating practices to prevent spillage or leakage of contaminated materials from occurring during operations. Inspect vehicles leaving the area of contamination to ensure that no contaminated materials adhere to the wheels or undercarriage.

-- End of Section --

SECTION 02216

SILT TURBIDITY CURTAIN

PART 1 GENERAL

1.1 SCOPE

The work consists of furnishing labor, material, equipment, and placing a silt turbidity curtain as specified herein and as shown in the plans.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 123	Standard Terminology Relating to Textiles Materials
ASTM D 3776	Weight (Mass) per Unit Area of Woven Fabric
ASTM D 3786	Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Test
ASTM D 4491	Water Permeability of Geotextiles by Permittivity
ASTM D 4533	Trapezoidal Tearing Strength of Geotextiles
ASTM D 4632	Breaking Load and Elongation of Geotextiles (Grab Method)
ASTM D 4751	Determining the Apparent Opening Size of a Geotextile
ASTM D 4833	Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	Guide for Identification, Storage and Handling of Geotextiles

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Turbidity Curtain Work Plan;G;CC*

Within 10 days after written Notice to Proceed, the Contractor shall submit the Turbidity Curtain Work Plan. The Turbidity

Curtain Work Plan shall incorporate the requirements specified herein with respect to the geotextile fabric, cable, chain, flotation blocks, and fasteners regarding installation and anchoring procedures. Fabrication details or installation techniques that differ from those specified herein shall be documented in the Turbidity Curtain Work Plan and submitted for consideration by the Contracting Officer's Representative. However, rejection of alternative methods suggested by the Contractor shall not constitute a basis for claim. An additional approver will be TS-HE.

SD-03 Product Data

Manufacturer's certified material property data sheets

Manufacturer's quality control manual

Manufacturer's certified quality control test results

Warranty

Written warranties addressing geotextile material workmanship shall be submitted to the Contracting Officer's Representative. The manufacturer's warranty shall state that the installed material meets all requirements of the contract documents.

SD-04 Samples

Geotextile fabric, metal chain, metal cable, and float material samples

SD-06 Test Reports

Friction Test Results

Certified laboratory interface friction test results including description of equipment and test method.

PART 2 PRODUCTS

The silt turbidity curtain shall consist of the IWT/CARGO GUARD Turbidity Barrier shown in the plans, or similar material as approved by the Contracting Officer's Representative. The Contracting Officer's Representative's approval of the material shall not relieve the Contractor of responsibility for the requirements in SECTION 02216 SILT TURBIDITY CURTAIN.

2.1 GEOTEXTILE FABRICS

The Supplier shall select a geotextile fabric, which meets all specification requirements and is chemically compatible with all contact materials. The geotextile shall be a non-woven needle-punched sheet of polymeric yarn as determined by ASTM D 123, ASTM D 3776, and ASTM D 3786. The geotextile fiber shall consist of long-chain polymers composed of at least 85 percent by weight of polypropylene, polyester, or polyethylene. The fabric shall be fixed so that the yarns will retain their relative position with respect to each other. The edges of the fabric shall be finished to prevent the outer yarn from pulling away from the fabric. The geotextile physical properties shall equal or exceed the minimum values

listed in below. Test values shown are minimum average roll values.

Property	Test Method	Test Value
Water flow rate (gpm/ft2)	ASTM D 4491	95
Puncture (lbs)	ASTM D 4833	130
Tensile grab (lbs)	ASTM D 4632	250
Tensile elongation (percent)	ASTM D 4632	50
Trapezoidal tear (lbs)	ASTM D 4533	80
AOS (U.S. Sieve no.)	ASTM D 4751	140
Permittivity (sec-1)	ASTM D 4491	0.1

The geotextile fabric shall be sewn with polypropylene thread such that a 16-inch pocket and a 3-inch pocket is created at the top of the fabric and a 2-inch pocket is created at the bottom of the pocket. The polypropylene thread shall have a minimum tensile strength of 90 percent of the seam strength of the geotextile fabric. The geotextile fabric shall be of sufficient length from the top of the 16-inch pocket to the bottom of the 2-inch pocket to reach from the bottom of the canal to the water surface. All pockets shall have a small 1/8-inch diameter polypropylene bailer cord, which runs the length of the silt curtain in the pocket for the purpose of pulling weights and cords through the pockets.

2.2 CABLE

The supplier shall supply a 5/8-inch diameter metal braided cable. The cable may be an off-the-shelf braided metal cable, found at common building supply stores. The cable shall have a minimum tensile strength of 2,600 lb. This cable shall be capable of being pulled through the 3-inch pocket for the purpose of anchoring the silt turbidity curtain to the shore. The flotation blocks discussed below must remain at the water surface after the cable is tied to the shore.

2.3 CHAIN

The supplier shall supply a 3/8-inch diameter metal chain capable of being pulled through a 2-inch pocket at the bottom of the silt curtain. This chain may be made of any metal, and may be of a type, which may be purchased in any common hardware store. The chain shall be capable of maintaining the silt turbidity curtain contact with the bottom of the canal.

2.4 FLOATATION BLOCKS

The supplier shall supply polystyrene foam blocks capable of being pulled through a 16-inch pocket at the top of the silt curtain. The foam flotation blocks shall be 7-inch by 7-inch square or 10-inch diameter by 4-foot long. The foam blocks shall be capable of maintaining the silt turbidity curtain at the water surface once the geotextile is fully wetted, the chain ballast is in place, and the cable is tied to the shore.

2.5 FASTENERS

The supplier shall supply a type of fastener that may be purchased at any common hardware store. Types of acceptable fasteners may include metal shelf ring nails, pliable metal wire, or cable ties. The fasteners shall be capable of fastening silt curtain sections and remain intact for the duration of the dredging according to SECTION 02325 DREDGING. Fasteners shall not pose a hazard to wildlife within the lake ecosystem.

2.6 TESTS AND INSPECTIONS

2.6.1 Geotextile Fabric

All geotextiles shall be randomly sampled and tested in accordance with the manufacturer's quality control program manual to evaluate the required physical properties. The manufacturer's quality control program shall perform tests at the following frequencies, or at a minimum of one per lot, whichever results in the greater number of tests:

Property	Test Frequency
AOS	One per 100,000 square feet
Water flow rate	One per 50,000 square feet
Puncture	One per 50,000 square feet
Tensile grab	One per 50,000 square feet
Tensile elongation	One per 50,000 square feet
Trapezoidal tear	One per 50,000 square feet

Certified test results on each sample shall be submitted to the Contracting Officer's Representative. In addition, one sample of each geotextile type to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be the full manufactured width of the geotextile by at least five (5) feet long. Samples not meeting the minimum requirements specified shall result in the rejection of the corresponding lot.

2.6.2 Cable

One sample of each type of cable to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.3 Chain

One sample of each type of chain to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.4 Flotation Blocks

One sample from each manufacturer of the flotation block to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.5 Fasteners

One sample of each type of fastener to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material.

PART 3 EXECUTION

3.1 DELIVERY

The silt turbidity curtain materials shall be delivered to the site.

Geotextiles shall be labeled, shipped, stored, and handled in accordance with ASTM D 4873 and as specified herein. Silt curtain sections may be delivered on pallets. Each pallet shall be labeled with 1) the manufacturer's name, 2) geotextile type, 3) lot number, 4) curtain dimensions, including length, width, or gross weight and 5) date manufactured. Geotextile damaged as a result of delivery, storage, or handling shall be repaired or replaced, as directed, at no additional cost. The pallets shall be off-loaded from the delivery truck using a forklift or similar equipment.

Cable, chain, flotation blocks, and fasteners shall be packaged separately and shall be labeled with 1) the manufacturer's name, 2) product dimensions, including, but not limited to length, width, or gross weight, and 3) number of items in each container. Materials damaged as a result of delivery, storage, or handling shall be repaired or replaced, as directed, at no additional cost.

3.2 HANDLING

No hooks, tongs, or other sharp instruments shall be used for handling the geotextiles. Geotextiles shall not be dragged along the ground. Care should be taken handling the flotation blocks to prevent denting them. Chain and cable shall not be dragged over any sharp edges.

3.3 STORAGE

Geotextile fabric, chain, cable, flotation blocks, and fasteners shall be stored according to manufacturer's specifications. Geotextiles shall be stored in areas where water cannot accumulate, elevated off the ground, and protected from conditions that will affect the properties or performance of the geotextile. The Contractor will inspect the storage location and recommend any changes needed to the Contracting Officer's Representative. Storage location preparation shall be the responsibility of the Contractor. Prior to installation, the geotextile shall not be exposed to direct sunlight for more than 14 days. Any silt curtain materials damaged during delivery, storage, or handling methods shall be repaired or replaced as directed by the Contracting Officer's Representative at no additional cost.

3.4 PLACEMENT

The silt curtain will be placed in the locations shown in the plan C-07. Prior to placement of the silt curtain, the Contracting Officer's Representative shall inspect the area; no silt curtain shall be placed until the area has been favorably reviewed.

The silt curtain shall be so placed as to produce continuous contact with the canal floor. Means of assuring that the fabric is properly aligned and anchored shall be incorporated into the placement methodology presented in the contractor's Turbidity Curtain Work Plan. At the time of installation, fabric shall be rejected if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation or storage.

3.5 DAMAGES

Damaged or defective silt curtain materials shall be replaced or repaired. Chain, cable, flotation blocks, and fasteners shall be replaced if damaged. Geotextile repair shall be made by placing a patch of the same type of

geotextile that extends a minimum of 18 inches beyond the edge of the damage or defect. Patches shall be continuously fastened using a sewn seam or other approved methods recommended by the manufacturer. The machine direction of the patch shall be aligned with the machine direction of the geotextile being repaired. Geotextiles that cannot be repaired shall be replaced, at no additional cost.

-- End of Section --

SECTION 02220

DEMOLITION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.6	(1990) Safety Requirements for Demolition Operations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

Do not begin demolition until authorization is received from the Contracting Officer. The work includes demolition, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from and placed on the location as shown on the plans, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Work Plan; G

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The

procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.

Pre-Construction Survey; G

Demolition plan; G

SD-07 Certificates

Notification of Demolition; G

Submit proposed demolition and removal procedures to the Contracting Officer for approval before work is started.

SD-11 Closeout Submittals

Receipts

1.4 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the "Contract Clauses," safety requirements shall conform with ANSI A10.6.

1.5 DUST AND DEBRIS CONTROL

Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.

1.6 PROTECTION

1.6.1 Traffic Control Signs

Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Contracting Officer prior to beginning such work.

1.6.2 Existing Work

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Government; any damaged items shall be repaired or replaced as approved by the Contracting Officer. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition or removal work. Repairs, reinforcement, or structural replacement must have Contracting Officer approval.

1.6.3 BP Amoco/ARCO Oil Recovery System

The existing BP Amoco/ARCO Oil Recovery System is in operation. The oil recovery system shall remain in place for the duration of this contract. Contractor shall repair any damage to this system and notify the COR of the damage and repair.

1.7 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.8 Demolition Plan

Demolition plan shall include procedures for coordination with other work in progress, a detailed description of methods and equipment to be used for each operation and of the sequence of operations.

1.9 Environmental Protection

The work shall comply with the requirements of Section 01355 ENVIRONMENTAL PROTECTION.

1.10 USE OF EXPLOSIVES

Use of explosives will not be permitted.

PART 2 PRODUCTS

2.1 INDOT Coarse Aggregates 53

Backfill for structure shall be INDOT Coarse Aggregates 53. The stone furnished for CA 53 shall conform to Indiana Department of Transportation Standard Specifications section 900 Material Details.

PART 3 EXECUTION

3.1 PRE-CONSTRUCTION SURVEY

The Contractor shall conduct a survey to identify the locations of all underground utilities and obstructions prior to construction. Utilities and obstructions not shown on the plans but was identified during this survey shall be directed to the COR. The COR shall decide whether to remove or leave in-place the additional utilities or obstructions. Payment for additional removal shall be agreed on before start of construction.

3.2 EXISTING OBSTRUCTION TO BE REMOVED

Contractor may, with prior approval from the COR, used other methods to remove obstructions. The alternative method of demolition must be submitted with the demolition plan.

3.2.1 Structures

Existing structures and manhole indicated shall be demolished and removed to one (1) feet below grade. Concrete structure shall be broken and Interior walls, other than retaining walls and partitions, shall be removed to one (1) feet below grade. Pipes within the structures shall be removed as stated in the follow paragraph 3.2.5 Hydrants, Pipes and Valves. Voids

within the structures that are equal or larger that 2 feet by 2 feet or 4 square foot area shall be backfilled and compacted as describe in the BACKFILL AND COMPACTION paragraph below. Voids the are smaller shall be backfill but does not need to be compacted until the final lift.

3.2.2 Fenders and Wall Accessories

Contractor shall remove the fenders and wall accessories along the sheet pile structures in the canal as shown on the plans. During the removal operation, the Contractor shall protect the existing structure from damage and ensure that the removal of fenders and wall accessories will not undermine the sheet pile structure.

3.2.3 Utilities and Related Equipment

Remove existing utilities, as indicated and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by the Contracting Officer. When utility lines are encountered that are not indicated on the drawings, the Contracting Officer shall be notified prior to further work in that area. Remove meters and related equipment and deliver to a location in accordance with instructions of the Contracting Officer. If utility lines are encountered that are not shown on drawings, contact the Contracting Officer for further instructions.

3.2.4 Slabs and Concrete Pad

Contractor shall break concrete and/or asphalt concrete slabs and concrete pad to a minimum of one (1) foot below below existing adjacent grade.

3.2.5 Bollard (Concrete Post)

Existing Bollard (concrete post) are tiedown, or mooring anchors for ships and are 24 inches in diameter and 3 feet in height and and are filled with concrete. Contractor shall sawcut the Bollard in a straight lines parallel to the existing ground at a location of not less than 1 foot below existing ground level. The sawcut shall be at a depth of not less than 2 inches into the Bollard. Contractor shall break the Bollard so that no the remaining structure will be at a min of 1 foot below existing ground level. At locations where the broken face cannot be concealed, grind smooth or saw cut entirely through the concrete.

3.2.6 Hydrants, Pipes and Valves

Before demolition, the Contractor shall verify that the hydrants, pipes and valves identified to be removed are no long in service. The Contractor shall contact the COR in the event that there are any hydrants, pipes and valves are active. The COR will determine the next action. The Contractor shall remove hydrants, pipes and valves to a depth of one (1) below below existing adjacent grade. Pipes remaining that are perpendicular to the ground shall be plugged three (3) feet below top the the removal and filled with grout.

3.2.7 Fenders and Wall Accessories

Contractor shall remove fenders and wall accessories along the sheet pile as shown on the plans. The Contractor shall remove the fender and wall accessories without damaging existing sheet pile structure.

3.3 BACKFILL AND COMPACTION

Contractor shall backfill voids created or existing from the one (1) foot demolition and removal of the structures and/or other obstruction. Filling voids shall consist backfilling with broken concrete from demolition and INDOT Coarse Aggregates 53. The Contractor shall compact and work broken concrete and INDOT Coarse Aggregates 53 to minimize voids. The contractor shall backfill to meeting adjacent grade. The final 12 inches shall be INDOT CA 53 and compacted. Broken concrete shall not be used in the final 12 inches. The contractor shall use any vibratory equipment with prior approval from the COR.

3.4 DISPOSITION OF MATERIAL

Contractor shall dispose of pipes, post, hydrants and unused broken concrete and other debris to the debris areas as shown on the plans. No debris shall be taken off site.

-- End of Section --

SECTION 02231

CLEARING AND GRUBBING

PART 1 GENERAL

1.1 SCOPE

The work of this section consists of furnishing all plant, labor, equipment, and materials and performing all operations in connection with the clearing and grubbing of all surface materials and debris. The Contractor shall perform the work in accordance with these specifications unless directed otherwise by the Contracting Officer. Clearing and grubbing debris will be stockpiled and remain on site. Clearing and grubbing shall be performed within a work limits as shown on the plans from the sheet pile to approximately 205 feet north. Clearing and grubbing in the debris area will not be required.

1.2 DEFINITIONS

1.2.1 Clearing

Clearing shall consist of the removal of brush, trees, other vegetation, and debris; the felling, trimming, and cutting of trees into sections; the satisfactory on-site disposal of trees, other vegetation, and rubbish designated for removal, including downed timber, snags, brush, and concrete occurring within the work limit as shown on the plan except those identified to demolish and paid for on a separate line item; or any area determined by the Contracting Officer. No burning will be allowed on site.

1.2.2 Grubbing

Grubbing shall consist of the removal and disposal of organic or metallic material, stumps, roots larger than 3 inches in diameter, and matted roots from the designated grubbing areas.

1.2.3 Satisfactory Materials

Satisfactory materials shall consist of materials classified in accordance with ASTM D-2487 as CL, CL-ML, ML, SC, SP, SW free from roots and other organic matter, contamination from hazardous, toxic, or radiological substances, trash, debris, frozen materials, and stones larger than three (3) inches in any dimension.

1.2.4 Borrow

Materials required in this Section for construction may be taken from approved commercial borrow sites or from approved borrow site locations obtained by the Contractor.

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver materials to, store at the site, and handle in a manner which will maintain the materials in their original manufactured or fabricated condition until ready for use.

1.4 ENVIRONMENTAL PROTECTION

All work and Contractor operations shall comply with the requirements of SECTION 01355 ENVIRONMENTAL PROTECTION.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.2 Utility Lines

Protect existing utility lines that are indicated to remain from damage. Notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible for the repairs of damage to existing utility lines that are indicated or made known to the Contractor prior to start of clearing and grubbing operations. When utility lines which are to be removed are encountered within the area of operations, the Contractor shall notify the Contracting Officer in ample time to minimize interruption of the service.

3.2 CLEARING

Clearing shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the entire work limit area except for debris area. Trees, stumps, roots, brush, and other vegetation in the work limit shall be cut off flush with the original ground surface. The clearing below original ground surface will not be allowed.

3.3 TREE REMOVAL

Trees and stumps within the work limit shall be removed from the areas designated for clearing and grubbing. This work shall include the felling of such trees and the removal of their stumps and roots as specified in paragraph GRUBBING. Trees shall be disposed of as specified in paragraph DISPOSAL OF MATERIALS. Depression created from the removal shall be filled with satisfactory material from borrow site.

3.4 GRUBBING

Grubbing shall consist of the removal and disposal of stumps, roots larger than 3 inches in diameter, and matted roots from the designated grubbing areas.
Material to be grubbed, together with logs and other organic or metallic debris not suitable for foundation purposes, shall be removed to a depth of not less than 18 inches below the original surface level of the ground in areas indicated to be grubbed and in areas indicated as construction areas under this contract, such as areas for buildings, and areas to be paved. Depressions made by grubbing shall be filled with suitable material and compacted to make the surface conform with the original adjacent surface of

the ground.

3.5 DISPOSAL OF MATERIALS

All materials resulting from the clearing and grubbing operations shall be stored on-site in the debris area defined on Plans. Additional storage areas for temporary storage may be used with the approval of the Contracting Officer. At no time will the height of any pile exceed fifteen (15) feet unless approved by the Contracting Officer. The Contractor shall be responsible for compliance with all Federal and State laws and regulations.

3.6 QUALITY CONTROL

3.6.1 Control

The Contractor shall establish and maintain a quality control system for the work under this section to ensure compliance with the contract requirements; and maintain records of his quality control for all construction operations including, but not limited to, 1) clearing and grubbing and 2) disposal of materials.

3.6.2 Records

A copy of these records, as well as the records of corrective actions taken, shall be furnished to the Government as directed by the Contracting Officer in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

-- End of Section --

SECTION 02250

SHORING SYSTEM

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1/D1.1M (2002) Structural Welding Code - Steel

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2003) Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G, LRP.

Detail drawings for the shoring system shall be submitted as specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

SD-03 Product Data

Work Plan; G, LRP.

The Work Plan within 30 days after notice to proceed. The Contractor shall allow 30 days in the schedule for the Government's review and approval. No adjustment for time or money will be made for resubmittals required as a result of noncompliance.

1.3 WORK PLAN

The Contractor shall develop a work plan for shoring the existing sheet pile wall and excavation and removal of the abandoned pipelines. The drawings present a conceptual design for a reusable shoring system for removal of the abandoned pipes. The Contractor shall design, construct, maintain, install, remove, and deliver to the Government as part of the work, a reusable shoring system meeting the requirements of this contract.

As a minimum the plan shall include, but not be limited to, fabrication, installation, and removal of the shoring system and any appurtenances. The Work Plan shall be based on work experience and the requirements of this contract. No work at the site, with the exception of site inspections and mobilization, shall be performed until the Work Plan is approved. At a minimum, the Work Plan shall include:

a. Discussion of the fabrication, installation and removal procedures.

b. Spill prevention plan.

d. Spill contingency plan.

e. Safety measures in accordance with EM 385-1-1.

1.4 SHORING SYSTEM

The contract drawings present a conceptual design for a reusable shoring system for removal of the abandoned pipes. The Contractor shall design a reusable shoring system that shall conform to the following:

a. Shall be safe for all work stages and loading conditions in accordance with EM 385-1-1.

b. Shall be designed to prevent ground pressures behind the existing sheet pile wall from exceeding 300 pounds per square foot at any time during the installation of the shoring system, excavation, pipe removal, backfill, or removal of shoring.

c. Shall completely enclose the work area and shall prevent release of suspended sediments outside the work area.

d. Shall be self supporting.

e. Shall not not incorporate components that are intended to be left in place. The entire shoring system shall be removed upon completion of the work for which it is required.

f. Shall be reusable, either as a complete structure or as component parts of a similar structure.

g. Shall be capable of being installed and removed without use of specialized equipment.

The shoring system shall become the property of the Government upon completion of the work, and shall be delivered to the Government as directed by the Contracting Officer. If the Contractor fabricates multiple shoring systems for use at the various locations, all components shall become the property of the Government. Any components damaged by installation, handling or removal of the shoring system shall be repaired or replaced so that the system, as delivered to the Government, is completely functional.

PART 2 PRODUCTS

2.1 MATERIALS

Materials shall conform with the requirements of Section 02464 METAL SHEET PILING and Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS

PROVISIONS. Materials that are not specified in these sections shall be suitable for the intended purpose and shall be identified by appropriate industry standards on the shop drawings.

2.2 FABRICATION

2.2.1 Detail Drawings

Detail drawings of shoring system and appurtenant items, including fabrication drawings and field installation drawings, shall conform to the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. The drawings shall include the following information:

a. Details and dimensions of sheet piling, waler frames, spud piles and support brackets

b. Detail of the method of handling piling to prevent permanent deflection, distortion or damage to piling interlocks

c.

2.2.1.1 Fabrication Drawings

Fabrication drawings shall show complete details of materials, tolerances, connections, and proposed welding sequences which clearly differentiate shop welds and field welds.

2.2.1.2 Field Installation Drawings

Field installation drawings shall provide a detailed description of the field installation procedures. The description shall include the location and method of support of installation and handling equipment; provisions to be taken to protect other work during installation; method of maintaining components in correct alignment; and methods for installing other appurtenant items.

2.2.2 Structural Fabrication

Structural fabrication shall conform with the requirements shown and specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Bolt connections, lugs, clips, or other pick-up assembly devices shall be provided for components as required for proper assembly and installation.

2.2.3 Welding

Welding shall conform with the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Welds shall be in accordance with AWS D1.1/D1.1M.

2.2.4 Bolted Connections

Bolted connections shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.2.5 Painting

Painting of the shoring system is not required.

2.3 TESTS, INSPECTIONS, AND VERIFICATIONS

Tests, inspections, and verifications for materials shall conform to the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, AND MISCELLANEOUS PROVISIONS.

PART 3 EXECUTION

3.1 INSTALLATION AND REMOVAL

Installation and removal shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS and the approved work plan.

-- End of Section --

SECTION 02325

DREDGING

PART 1 GENERAL

1.1 SCOPE

Mechanical Dredging shall consist of furnishing all labor, materials, tools, equipment and incidentals necessary to remove the sediment from Lake George Canal to remove the pipes in the canal as shown on the drawings. The Contractor shall be required to perform all dredging work utilizing a closed bucket or a modified mechanical clamshell bucket to minimize resuspension during dredging and minimize spillage during transfer to storage facility (barge) and/or roll-off boxes.

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-01 Preconstruction Submittals

Dredging; G

The Contractor shall submit, 14 days prior to the start of dredging, a schedule for dredging and hauling of dredged materials. Dredging shall be accomplished in order to facilitate removal of the pipes in the canal."

SD-02 Shop Drawings

Bucket; G

Catalog cuts for designed and manufactured of modified mechanical clamshell buckets to minimize resuspension during dredging and minimize spillage during transfer to storage facility (barge) and/or roll-off boxes. Contractor shall provide drawings and description of operations for fabrication of buckets.

SD-03 Product Data

Equipment;G

The Contractor shall submit a list of equipments for government approval to be used for the work required under this section.

Roll Off Box; G

Trucks for Hauling Dredged Materials;G

SD-07 Certificates

Dredging, Disposal, and Loading Plan;G,HE

A plan detailing the equipment, procedures to follow for the dredging and handling of dredged materials, transferring of

dredged materials to storage facility (barge) and/or roll-off boxes, and contacting and coordinating with approved treatment, storage and disposal facility personnel shall be submitted for Government approval. The plan must be approved prior to the commencement of dredging.

Protection plan;G

Prior to dredging, submit a plan for protection of surrounding structures, equipment, and vessels.

Spillage and Decontamination Plan;G

Prior to dredging, submit a plan to include specifically how spillage will be contained during transfer to boxes and decontamination of trucks leaving the site.

1.3 MATERIAL TO BE REMOVED

The material to be removed is silt, and other materials. Contractor shall verify material to be remove from the boring logs on the plans.

1.3.1 Hard Material

Remove hard material. Blasting will not be permitted.

1.4 ARTIFICIAL OBSTRUCTIONS

Except pipes as indicated to be removed, the Government has no knowledge of cables, pipes, or other artificial obstructions or of any wrecks, wreckage, or other material that would necessitate the use of explosives or the employment of additional equipment for economical removal. If actual conditions differ from those stated or shown, or both, an adjustment in contract price or time for completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

1.5 CHARGES

The Contractor will pay charges imposed by the solid waste landfill for disposal of material.

1.6 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain during the life of the contract, environmental protective measures as outlined in SECTION 01355 ENVIRONMENTAL PROTECTION. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution.

PART 2 PRODUCTS

2.1 DREDGING BUCKETS

Dredging of material shall be accomplished by mechanical dredging. Hydraulic dredging is not allowed. The Contractor shall dredge all materials under this contract using a watertight, modified mechanical

clamshell buckets to minimize resuspension during dredging and minimize spillage during transfer to storage facility and/or roll-off boxes. The bucket design shall be submitted for Government approval. The bucket must be approved prior to the commencement of dredging.

2.2 DREDGING, DISPOSAL, and LOADING PLAN

The Contractor shall submit a plan for government approval that details the equipment and procedures to be used for dredging, sediment transportation and handling to the Loading Areas, disposal, and truck loading. The plan shall include, but not be limited to the following.

2.2.1 Equipment and Loading

Diagrams that show the proposed equipment and features at each Loading Area.

2.2.2 Equipment Data

A detailed list, including bucket specifications and equipment diagrams/plans/photographs, of the type of dredging equipment proposed.

2.2.3 Characterization of the Sediment

The Corps will to provide existing characterization data of the material in the canal to the Contractor upon request. The contractor may have to do additional sampling to verify that he can dispose of the sediment properly. The Contractor must acquire enough accurate, reliable, and documented information to determine the most appropriate and environmentally safe way to dispose of the material at no additional cost to the government.

2.2.4 Method

Equipment and methods to be used to transfer dredge material to storage facility and/or roll-off boxes at the Loading areas, including methods to minimize resuspension during dredging and minimize spillage.

2.3 OTHER EQUIPMENT

Contractor shall provide all other equipment, auxiliary pumping station(s), operators, labor, materials, fuel and incidentals necessary to complete all mobilization, mechanical dredging, and demobilization to complete this project.

2.4 INDOT Coarse Aggregates 1

Backfill for structure shall be INDOT Coarse Aggregates 1. The stone furnished for CA 1 shall conform to Indiana Department of Transportation Standard Specifications section 900 Material Details.

PART 3 EXECUTION

3.1 INSPECTION

The Contractor shall keep a record of work performed and will require that gages, ranges, and other markers are usable for the intended purpose. Furnish, at the request of the Contracting Officer, boats, boatmen, laborers, and materials necessary for inspecting, supervising, and surveying the work. When required, provide transportation for the Contracting Officer and inspectors to and from the disposal area and

between the dredging plant and adjacent points on shore.

3.2 DREDGING

Dredging shall be to the elevation of the pipes as shown on the drawings or field verified elevations. The Contractor shall pay special attention to the limits as shown on the drawings, as the requirements for each area are different. Dredging to a greater depth than that shown on the drawings or to required to remove the designated pipes will not be permitted. Such dredging may cause damage to existing walls, docks, wharves, under channel pipes and cable-crossings, and other waterfront structures. Any damage caused by such dredging shall be repaired by the Contractor, as directed by the COR, without additional expense to the Government. Contractor shall exercise extreme caution when dredging and loading of trucks next to structures and shall incur no damage to these structures. Contractor is responsible for any and all damages to structures incurred as a result of the dredging activity.

3.3 CONDUCT OF DREDGING WORK

3.3.1 Order of Work

The Contracting Officer will direct the Contractor on the order of work. The Government reserves the right to change the order of work at any time.

3.3.2 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, pipelines, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.3.3 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

3.3.4 Plant

Maintain the plant, scows, coamings, barges, pipelines, and associated equipment to meet the requirements of the work. Promptly repair leaks or breaks along pipelines. Remove dredged material placed due to leaks and breaks.

3.3.5 Disposal of Dredged Material

Provide for safe transportation and disposal of dredged materials as stated in the Environmental Protection Section. Contractor shall dispose of dredged material to a treatment, storage, disposal facility. The deposit of dredged materials in unauthorized places is forbidden. Comply with rules and regulations of local port and harbor governing authorities.

3.3.6 Safety of Structures

The prosecution of work shall ensure the stability of sheet piles and other structures lying on or adjacent to the site of the work, insofar as structures may be jeopardized by dredging operations. Repair damage resulting from dredging operations, insofar as such damage may be caused by variation in locations or depth of dredging, or both, from that indicated or permitted under the contract.

3.3.7 Plant Removal

Upon completion of the work, promptly remove plant, including ranges, buoys, piles, and other markers or obstructions.

3.4 REMOVAL OF PIPES IN CANAL

Refer to section 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES.

3.5 BACKFILLING IN CANAL

After the pipes in each dredging area have been cut, capped and removed from the canal and the work have been approved, the contractor shall backfill with INDOT Coarse Aggregates 1 within the shoring system to an elevation of 565.0 for shoring system 1 and 2 and an elevation of 556.0 for shoring system 3 before removing the structure.

-- End of Section --

SECTION 02464

METAL SHEET PILING

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 6/A 6M	(2002b) General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling
ASTM A 328/A 328M	(2000) Steel Sheet Piling
ASTM A 572/A 572M	(2001) High-Strength Low-Alloy Columbium-Vanadium Structural Steel

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Pile Driving Equipment; G, CS

Complete descriptions of sheet piling driving equipment including hammers, extractors, protection caps and other installation appurtenances, prior to commencement of work.

SD-06 Test Reports

Materials Tests; G, LRP

Certified materials tests reports. Reports showing that sheet piling and appurtenant metal materials meet the specified requirements shall be submitted for each shipment and identified with specific lots prior to installing materials. Material test reports shall meet the requirements of ASTM A 6/A 6M.

1.3 DELIVERY, STORAGE AND HANDLING

Materials delivered to the site shall be new and undamaged and shall be accompanied by certified test reports. The manufacturer's logo and mill identification mark shall be provided on the sheet piling as required by

the referenced specifications. Sheet piling shall be stored and handled in the manner recommended by the manufacturer to prevent permanent deflection, distortion or damage to the interlocks. Storage of sheet piling should also facilitate required inspection activities.

PART 2 PRODUCTS

2.1 METAL SHEET PILING

Metal sheet piling shall be hot-rolled steel sections conforming to ASTM A 328/A 328M, or ASTM A 572/A 572M, hot-rolled, light-duty steel sections conforming to ASTM A 572/A 572M, Grade 50, or cold-formed steel sections formed from hot-rolled steel meeting the chemical and mechanical requirements of ASTM A 328/A 328M or ASTM A 572/A 572M.

2.1.1 Interlocks

The interlocks of sheet piling shall be free-sliding, provide a swing angle suitable for the intended installation but not less than 5 degrees when interlocked, and maintain continuous interlocking when installed.

2.1.2 General Requirements

Sheet piling, including special fabricated sections, shall be full-length sections of the dimensions required. Fabricated sections shall conform to the requirement and the piling manufacturer's recommendations for fabricated sections. Sheet piling shall be provided with standard pulling holes. Metalwork fabrication for sheet piling shall be as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.2 APPURTENANT METAL MATERIALS

Metal plates, shapes, bolts, nuts, rivets and other appurtenant fabrication and installation materials shall conform to manufacturer's standards and to the requirements specified in the respective sheet piling standards and in Section 05502 METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS.

2.3 TESTS, INSPECTIONS, AND VERIFICATIONS

Requirements for material tests, workmanship and other measures for quality assurance shall be as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.3.1 Materials Tests

Materials tests shall conform to the following requirements. Sheet piling and appurtenant materials shall be tested and certified by the manufacturer to meet the specified chemical, mechanical and section property requirements prior to delivery to the site. Testing of sheet piling for mechanical properties shall be performed after the completion of all rolling and forming operations. Testing of sheet piling shall meet the requirements of ASTM A 6/A 6M.

2.3.2 Interlocked Joint Strength in Tension Test

The interlocked joint strength in tension test shall conform to the piling manufacturer's standard test, include testing at least two 3 inch long coupons taken randomly from different as-produced pilings of each heat and

must be approved.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Pile Driving Equipment

Pile driving equipment shall conform to the following requirements.

3.1.1.1 Driving Hammers

Hammers shall be steam, air, or diesel drop, single-acting, double-acting, differential-acting, or vibratory type. The driving energy of the hammers shall be as recommended by the manufacturer for the piling weights and subsurface materials to be encountered.

3.1.2 Placing and Driving

3.1.2.1 Placing

Any excavation required within the area where sheet pilings are to be installed shall be completed prior to placing sheet pilings. Pilings shall be picked up and completely threaded to demonstrate that they slide freely in interlock. Pilings shall be carefully located. Pilings shall be placed plumb with out-of-plumbness not exceeding 1/8 inch per foot of length and true to line. Temporary wales, templates, or guide structures shall be provided to insure that the pilings are placed and driven to the correct alignment. At least two templates shall be used in placing each piling and the maximum spacing of templates shall not exceed 20 feet. Pilings properly placed and driven shall be interlocked throughout their length with adjacent pilings to form a continuous diaphragm throughout the length or run of piling wall.

3.1.2.2 Driving

Prior to driving pilings in water a horizontal line shall be painted on both sides of each piling at a fixed distance from the bottom so that it shall be visible above the water line after installation. This line shall indicate the profile of the bottom elevation of installed pilings and potential problem areas can be identified by abrupt changes in its elevation. Pilings shall be driven with the proper size hammer and by approved methods so as not to subject the pilings to damage and to ensure proper interlocking throughout their lengths.

a. Driving hammers shall be maintained in proper alignment during driving operations by use of leads or guides attached to the hammer.

b. A protecting cap shall be employed in driving when using impact hammers to prevent damage to the tops of pilings. Pilings damaged during driving or driven out of interlock shall be removed and replaced at the Contractor's expense.

c. Pilings shall be driven without the aid of a water jet.

d. Adequate precautions shall be taken to insure that pilings are driven plumb. If at any time the forward or leading edge of the piling wall is found to be out-of-plumb in the plane of the wall the piling being driven shall be driven to the required depth and tapered pilings

shall be provided and driven to interlock with the out-of-plumb leading edge or other approved corrective measures shall be taken to insure the plumbness of succeeding pilings. The maximum permissible taper for any tapered piling shall be 1/8 inch per foot of length.

e. Pilings in each run or continuous length of piling wall shall be driven alternately in increments of depth to the required depth or elevation. No piling shall be driven to a lower elevation than those behind it in the same run except when the pilings behind it cannot be driven deeper. If the piling next to the one being driven tends to follow below final elevation it may be pinned to the next adjacent piling.

f. If obstructions restrict driving a piling to the specified penetration the obstructions shall be removed or penetrated with a chisel beam. If the Contractor demonstrates that removal or penetration is impractical the Contractor shall make changes in the design alignment of the piling structure as directed to insure the adequacy and stability of the structure. Pilings shall be driven to depths shown and shall extend up to the elevation indicated for the top of pilings.

3.1.3 Cutting-Off and Splicing

Pilings driven below the required top elevation and pilings damaged by driving and cut off to permit further driving shall be extended as required to reach the top elevation by splicing when directed at no additional cost to the Government.

a. Pilings adjoining spliced pilings shall be full length unless otherwise approved. Splicing of pilings shall be as approved by the Contracting Officer. Ends of pilings to be spliced shall be squared before splicing to eliminate dips or camber. Pilings shall be spliced together with concentric alignment of the interlocks so that there are no discontinuities, dips or camber at the abutting interlocks. Spliced pilings shall be free sliding and able to obtain the maximum swing with contiguous pilings.

b. The tops of pilings excessively battered during driving shall be trimmed when directed at no cost to the Government. Piling cut-offs shall become the property of the Contractor and shall be removed from the site.

c. The Contractor shall cut holes in pilings for bolts as shown or as required. All cutting shall be done in a neat and workmanlike manner. A straight edge shall be used in cuts made by burning to avoid abrupt nicks. Bolt holes in steel piling shall be drilled or may be burned and reamed by approved methods which will not damage the surrounding metal. Holes other than bolt holes shall be reasonably smooth and the proper size for rods and other items to be inserted.

3.1.4 Inspection of Driven Piling

The Contractor shall inspect the interlocked joints of driven pilings extending above ground. Pilings found to be out of interlock shall be removed and replaced at the Contractor's expense. The Contractor shall use divers to inspect underwater interlocked joints of sheet piling. Government divers may also inspect the interlocked joints. The inspection shall be performed after driving is completed.

3.1.5 Pulling and Redriving

Any piling pulled and found to be damaged to the extent that its usefulness in the structure is impaired shall be removed and replaced at the Contractor's expense. Pilings pulled and found to be in satisfactory condition shall be redriven when directed.

3.2 REMOVAL

The removal of sheet pilings shall consist of pulling, sorting, cleaning the interlocks, inventorying and storing previously installed sheet pilings as shown and directed.

3.2.1 Pulling

The method of pulling piling must be approved. Pulling holes shall be provided in pilings as required. Extractors shall be of suitable type and size. Care shall be exercised during pulling of pilings to avoid damaging piling interlocks and adjacent construction. If the Contracting Officer determines that adjacent permanent construction has been damaged during pulling the Contractor will be required to repair this construction at no cost to the Government. Pilings shall be pulled one sheet at a time. Pilings fused together shall be separated prior to pulling unless the Contractor demonstrates to the satisfaction of the Contracting Officer that the pilings cannot be separated.

3.2.2 Sorting, Cleaning, Inventorying and Storing

Pulled pilings shall be sorted, cleaned, inventoried and stored by type into groups as:

a. Piling usable without reconditioning.

b. Piling requiring reconditioning.

c. Piling damaged beyond structural use.

-- End of Section --

SECTION 05055

METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 325	(2002) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 490	(1993) Heat-Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength
ASTM A 514/A 514M	(1994a) High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
ASTM E 165	(1995) Liquid Penetrant Examination Inspection Method
ASTM E 709	(1995) Magnetic Particle Examination

ASME INTERNATIONAL (ASME)

ASME B4.1	(1967; R 1994) Preferred Limits and Fits for Cylindrical Parts
ASME BPV IX	(1995) Boiler and Pressure Vessel Code; Section IX, Welding and Brazing Qualifications

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1	(1994) Structural Welding Code - Steel
AWS D1.2	(1990) Structural Welding Code - Aluminum

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Welding of Structural Steel; G, CS

Schedules of welding procedures for steel structures shall be submitted and approved prior to commencing fabrication.

SD-06 Test Reports

Tests, Inspections, and Verifications; G, CS

Certified test reports for materials shall be submitted with all materials delivered to the site.

SD-07 Certificates

Qualification of Welders and Welding Operators; G, CS

Certifications for welders and welding operators shall be submitted prior to commencing fabrication.

1.3 DETAIL DRAWINGS

Detail drawings for metalwork shall include catalog cuts, templates, fabrication and assembly details and type, grade and class of material as appropriate. Elements of fabricated items inadvertently omitted on contract drawings shall be detailed by the fabricator and indicated on the detail drawings. Detail drawings shall be submitted as specified in Section 02250 SHORING SYSTEM

1.4 QUALIFICATION OF WELDERS AND WELDING OPERATORS

The Contractor shall certify that the qualification of welders and welding operators and tack welders who will perform structural steel welding have been qualified for the particular type of work to be done in accordance with the requirements of AWS D1.1, Section 5, or ASME BPV IX, Section IX, prior to commencing fabrication. The certificate shall list the qualified welders by name and shall specify the code and procedures under which qualified and the date of qualification. Prior qualification will be accepted if welders have performed satisfactory work under the code for which qualified within the preceding three months. The Contractor shall require welders to repeat the qualifying tests when their work indicates a reasonable doubt as to proficiency. Those passing the requalification tests will be recertified. Those not passing will be disqualified until passing. All expenses in connection with qualification and requalification shall be borne by the Contractor.

PART 2 PRODUCTS

2.1 FABRICATION

2.1.1 Structural Fabrication

Material must be straight before being laid off or worked. If straightening is necessary it shall be done by methods that will not impair the metal. Sharp kinks or bends shall be cause for rejection of the material. Material with welds will not be accepted except where welding is definitely specified, indicated or otherwise approved. Bends shall be made by approved dies, press brakes or bending rolls. Where heating is required, precautions shall be taken to avoid overheating the metal and it shall be allowed to cool in a manner that will not impair the original

properties of the metal. Proposed flame cutting of material other than structural steel shall be subject to approval and shall be indicated on detail drawings. Shearing shall be accurate and all portions of the work shall be neatly finished. Corners shall be square and true unless otherwise shown. Re-entrant cuts shall be filleted to a minimum radius of 3/4 inch unless otherwise approved. Finished members shall be free of twists, bends and open joints. Bolts, nuts and screws shall be tight.

2.1.1.1 Dimensional Tolerances for Structural Work

Dimensions shall be measured by an approved calibrated steel tape of approximately the same temperature as the material being measured. The overall dimensions of an assembled structural unit shall be within the tolerances indicated on the approved detail drawings. An allowable variation of 1/32 inch is permissible in the overall length of component members with both ends milled and component members without milled ends shall not deviate from the dimensions shown by not more than 1/16 inch for members 30 feet or less in length and by more than 1/8 inch for members over 30 feet in length.

2.1.1.2 Structural Steel Fabrication

Structural steel may be cut by mechanically guided or hand-guided torches, provided an accurate profile with a surface that is smooth and free from cracks and notches is obtained. Surfaces and edges to be welded shall be prepared in accordance with AWS D1.1, Subsection 3.2. Where structural steel is not to be welded, chipping or grinding will not be required except as necessary to remove slag and sharp edges of mechanically guided or hand-guided cuts not exposed to view. Hand-guided cuts which are to be exposed or visible shall be chipped, ground or machined to sound metal.

2.1.2 Welding

2.1.2.1 Welding of Structural Steel

a. Welding Procedures for Structural Steel - Welding procedures for structural steel shall be prequalified as described in AWS D1.1, Subsection 5.1 or shall be qualified by tests as prescribed in AWS D1.1, Section 5. Properly documented evidence of compliance with all requirements of these specifications for previous qualification tests shall establish a welding procedure as prequalified. For welding procedures qualified by tests, the test welding and specimen testing must be witnessed and the test report document signed by the Contracting Officer. Approval of any welding procedure will not relieve the Contractor of the responsibility for producing a finished structure meeting all requirements of these specifications. The Contractor will be directed or authorized to make any changes in previously approved welding procedures that are deemed necessary or desirable by the Contractor Officer. The Contractor shall submit a complete schedule of welding procedures for each steel structure to be welded. The schedule shall conform to the requirements specified in the provisions AWS D1.1, Sections 2, 3, 4, 7 and 9 and applicable provisions of Section 10. The schedule shall provide detailed procedure specifications and tables or diagrams showing the procedures to be used for each required joint. Welding procedures must include filler metal, preheat, interpass temperature and stress-relief heat treatment requirements. Each welding procedure shall be clearly identified as being prequalified or required to be qualified by tests. Welding procedures must show types and locations of welds designated or

in the specifications to receive nondestructive examination.

b. Welding Process - Welding of structural steel shall be by an electric arc welding process using a method which excludes the atmosphere from the molten metal and shall conform to the applicable provisions of AWS D1.1, Sections 1 thru 7, 9, 10 and 11. Welding shall be such as to minimize residual stresses, distortion and shrinkage.

c. Welding Technique

(1) Filler Metal - The electrode, electrode-flux combination and grade of weld metal shall conform to the appropriate AWS specification for the base metal and welding process being used or shall be as shown where a specific choice of AWS specification allowables is required. The AWS designation of the electrodes to be used shall be included in the schedule of welding procedures. Only low hydrogen electrodes shall be used for manual shielded metal-arc welding regardless of the thickness of the steel. A controlled temperature storage oven shall be used at the job site as prescribed by AWS D1.1, Subsection 4.5 to maintain low moisture of low hydrogen electrodes.

(2) Preheat and Interpass Temperature - Preheating shall be performed as required by AWS D1.1, Subsection 4.2 and 4.3 or as otherwise specified except that the temperature of the base metal shall be at least 70 degrees F. The weldments to be preheated shall be slowly and uniformly heated by approved means to the prescribed temperature, held at that temperature until the welding is completed and then permitted to cool slowly in still air.

(3) Stress-Relief Heat Treatment - Where stress relief heat treatment is specified or shown, it shall be in accordance with the requirements of AWS D1.1, Subsection 4.4 unless otherwise authorized or directed.

d. Workmanship - Workmanship for welding shall be in accordance with AWS D1.1, Section 3 and other applicable requirements of these specifications.

(1) Preparation of Base Metal - Prior to welding the Contractor shall inspect surfaces to be welded to assure compliance with AWS D1.1, Subsection 3.2.

(2) Temporary Welds - Temporary welds required for fabrication and erection shall be made under the controlled conditions prescribed for permanent work. Temporary welds shall be made using low-hydrogen welding electrodes and by welders qualified for permanent work as specified in these specifications. Preheating for temporary welds shall be as required by AWS D1.1 for permanent welds except that the minimum temperature shall be 120 degrees F in any case. In making temporary welds arcs shall not be struck in other than weld locations. Each temporary weld shall be removed and ground flush with adjacent surfaces after serving its purpose.

(3) Tack Welds - Tacks welds that are to be incorporated into the permanent work shall be subject to the same quality requirements as the permanent welds and shall be cleaned and thoroughly fused with permanent welds. Preheating shall be performed as specified

above for temporary welds. Multiple-pass tack welds shall have cascaded ends. Defective tack welds shall be removed before permanent welding.

2.1.3 Bolted Connections

2.1.3.1 Bolted Structural Steel Connections

Bolts, nuts and washers shall be of the type specified or indicated. All nuts shall be equipped with washers except for high strength bolts. Beveled washers shall be used where bearing faces have a slope of more than 1:20 with respect to a plane normal to the bolt axis. Where the use of high strength bolts is specified or indicated the materials, workmanship and installation shall conform to the applicable provisions of ASTM A 325 or ASTM A 490.

a. Bolt Holes - Bolt holes shall be accurately located, smooth, perpendicular to the member and cylindrical.

(1) Holes for regular bolts shall be drilled or subdrilled and reamed in the shop and shall not be more than 1/16 inch larger than the diameter of the bolt.

(2) Holes for fitted bolts shall be match-reamed or drilled in the shop. Burrs resulting from reaming shall be removed. The threads of bolts shall be entirely outside of the holes. The body diameter of bolts shall have tolerances as recommended by ASME B4.1 for the class of fit specified. Fitted bolts shall be fitted in reamed holes by selective assembly to provide an LN-2 fit.

(3) Holes for high strength bolts shall have diameters of not more than 1/16 inch larger than bolt diameters. If the thickness of the material is not greater than the diameter of the bolts the holes may be punched. If the thickness of the material is greater than the diameter of the bolts the holes may be drilled full size or subpunched or subdrilled at least 1/8 inch smaller than the diameter of the bolts and then reamed to full size. Poor matching of holes will be cause for rejection. Drifting occurring during assembly shall not distort the metal or enlarge the holes. Reaming to a larger diameter of the next standard size bolt will be allowed for slight mismatching.

2.2 TESTS, INSPECTIONS, AND VERIFICATIONS

The Contractor shall have required material tests and analyses performed and certified by an approved laboratory to demonstrate that materials are in conformity with the specifications. These tests and analyses shall be performed and certified at the Contractor's expense. Tests, inspections, and verifications shall conform to the requirements of the particular sections of these specifications for the respective items of work unless otherwise specified or authorized. Tests shall be conducted in the presence of the Contracting Officer if so required. The Contractor shall furnish specimens and samples for additional independent tests and analyses upon request by the Contracting Officer. Specimens and samples shall be properly labeled and prepared for shipment.

2.2.1 Nondestructive Testing

When doubt exists as to the soundness of any material part such part may be

subjected to any form of nondestructive testing determined by the Contracting Officer. This may include ultrasonic, magnaflux, dye penetrant, x-ray, gamma ray or any other test that will thoroughly investigate the part in question. The cost of such investigation will be borne by the Government. Any defects will be cause for rejection and rejected parts shall be replaced and retested at the Contractor's expense.

2.2.2 Inspection of Structural Steel Welding

The Contractor shall maintain an approved inspection system and perform required inspections in accordance with Contract Clause CONTRACTOR INSPECTION SYSTEM. Welding shall be subject to inspection to determine conformance with the requirements of AWS D1.1, the approved welding procedures and provisions stated in other sections of these specifications. Nondestructive examination of designated welds will be required. Supplemental examination of any joint or coupon cut from any location in any joint may be required.

2.2.2.1 Visual Examination

All visual examination of completed welds shall be cleaned and carefully examined for insufficient throat or leg sizes, cracks, undercutting, overlap, excessive convexity or reinforcement and other surface defects to ensure compliance with the requirements of AWS D1.1, Section 3 and Section 9, Part D.

2.2.2.2 Nondestructive Examination

The nondestructive examination of shop and field welds shall be performed as designated or described in the sections of these specifications covering the particular items of work.

a. Testing Agency - The nondestructive examination of welds and the evaluation of examination tests as to the acceptability of the welds shall be performed by a testing agency adequately equipped and competent to perform such services or by the Contractor using suitable equipment and qualified personnel. In either case written approval of the examination procedures is required and the examination tests shall be made in the presence of the Contracting Officer. The evaluation of examination tests shall be subject to the approval and all records shall become the property of the Government.

b. Examination Procedures - Examination procedures shall conform to the following requirements.

(1) Ultrasonic Testing - Making, evaluating and reporting ultrasonic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part C. The ultrasonic equipment shall be capable of making a permanent record of the test indications. A record shall be made of each weld tested.

(2) Radiographic Testing - Making, evaluating and reporting radiographic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part B.

(3) Magnetic Particle Inspection - Magnetic particle inspection of welds shall conform to the applicable provisions of ASTM E 709.

(4) Dye Penetrant Inspection - Dye penetrant inspection of welds

shall conform to the applicable provisions of ASTM E 165.

c. Acceptability of Welds - Welds shall be unacceptable if shown to have defects prohibited by AWS D1.1, Subsection 9.25 or possess any degree of incomplete fusion, inadequate penetration or undercutting.

d. Welds to be Subject to Nondestructive Examination

Corner welds of waler frames

2.2.2.3 Test Coupons

The Government reserves the right to require the Contractor to remove coupons from completed work when doubt as to soundness cannot be resolved by nondestructive examination. Should tests of any two coupons cut from the work of any welder show strengths less than that specified for the base metal it will be considered evidence of negligence or incompetence and such welder shall be removed from the work. When coupons are removed from any part of a structure the members cut shall be repaired in a neat manner with joints of the proper type to develop the full strength of the members. Repaired joints shall be peened as approved or directed to relieve residual stress. The expense for removing and testing coupons, repairing cut members and the nondestructive examination of repairs shall be borne by the Government or the Contractor in accordance with the Contract Clauses INSPECTION AND ACCEPTANCE.

2.2.2.4 Supplemental Examination

When the soundness of any weld is suspected of being deficient due to faulty welding or stresses that might occur during shipment or erection the Government reserves the right to perform nondestructive supplemental examinations before final acceptance. The cost of such inspection will be borne by the Government.

2.2.3 Structural Steel Welding Repairs

Defective welds in the structural steel welding repairs shall be repaired in accordance with AWS D1.1, Subsection 3.7. Defective weld metal shall be removed to sound metal by use of air carbon-arc or oxygen gouging. Oxygen gouging shall not be used on ASTM A 514/A 514M steel. The surfaces shall be thoroughly cleaned before welding. Welds that have been repaired shall be retested by the same methods used in the original inspection. Except for the repair of members cut to remove test coupons and found to have acceptable welds costs of repairs and retesting shall be borne by the Contractor.

PART 3 EXECUTION

3.1 INSTALLATION

Bolts and screws shall be tightened firmly and uniformly but care shall be taken not to overstress the threads. When a half nut is used for locking a full nut the half nut shall be placed first and followed by the full nut. Threads of all bolts except high strength bolts, nuts and screws shall be lubricated with an approved lubricant before assembly. Threads of corrosion-resisting steel bolts and nuts shall be coated with an approved antigalling compound. Driving and drifting bolts or keys will not be permitted.

3.1.1 Alignment and Setting

Each structural unit shall be accurately aligned by the use of steel shims or other approved methods so that no binding in any moving parts or distortion of any member occurs before it is fastened in place.

3.2 TESTS

3.2.1 Workmanship

Workmanship shall be of the highest grade and in accordance with the best modern practices to conform with the specifications for the item of work being furnished.

3.2.2 Production Welding

Production welding shall conform to the requirements of AWS D1.1 or AWS D1.2 as applicable. Studs on which pre-production testing is to be performed shall be welded in the same general position as required on production items (flat, vertical, overhead or sloping). Test and production stud welding will be subjected to visual examination or inspection. If the reduction of the length of studs becomes less than normal as they are welded, welding shall be stopped immediately and not resumed until the cause has been corrected.

-- End of Section --

SECTION 05502

METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 36/A 36M	(1996) Carbon Structural Steel
ASTM A 53	(1996) Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM A 307	(1994) Carbon Steel Bolts and Studs, 60 000 psi Tensile Strength
ASTM A 320/A 320M	(1994; R 1995) Alloy Steel Bolting Materials for Low-Temperature Service
ASTM A 325	(2002) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 490	(1993) Heat-Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength
ASTM A 500	(1993) Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
ASTM A 501	(1993) Hot-Formed Welded and Seamless Carbon Steel Structural Tubing
ASTM A 514/A 514M	(1994a) High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
ASTM A 572/A 572M	(2001) High-Strength Low-Alloy Columbium-Vanadium Structural Steel
ASTM A 588/A 588M	(1994) High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4 in. (100 mm) Thick
ASTM A 618	(1993; R 1995) Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing
ASTM F 436	(1993) Hardened Steel Washers

ASME INTERNATIONAL (ASME)

ASME B18.2.1	(1981; Supple 1991; R 1992) Square and Hex Bolts and Screws (Inch Series)
ASME B18.2.2	(1987; R 1993) Square and Hex Nuts (Inch Series)
ASME B18.21.1	(1994) Lock Washers (Inch Series)
ASME B18.22.1	(1965; R 1990) Plain Washers

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

SD-03 Product Data

Miscellaneous Metals and Standard Metal Articles; G, LRP

Lists of materials shall be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

Records which identify the disposition of approved material and fabricated items in the work must be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

SD-06 Test Reports

Miscellaneous Metals and Standard Metal Articles; G, LRP

Certified test reports for materials tests and analyses shall be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

1.3 FABRICATION AND WORKMANSHIP REQUIREMENTS

Fabrication requirements and workmanship provisions for items specified in this section shall conform with the requirements of Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

PART 2 PRODUCTS

2.1 MISCELLANEOUS METALS AND STANDARD METAL ARTICLES

Miscellaneous metal materials and standard metal articles shall conform to the respective specifications and other designated requirements. Sizes shall be as specified or shown. Where material requirements are not specified, materials furnished shall be suitable for the intended use and shall be subject to approval.

2.1.1 Structural Steel

ASTM A 36/A 36M, ASTM A 572/A 572M, or ASTM A 588/A 588M.

2.1.2 Steel Plates

2.1.2.1 Structural

ASTM A 514/A 514M.

2.1.3 Steel Tubing

2.1.3.1 Structural

ASTM A 500, ASTM A 501, or ASTM A 618.

2.1.4 Steel Pipes

ASTM A 53.

2.1.5 Bolts, Nuts, and Washers

Bolts, nuts, and washers shall be of the material, grade, type, class, style and finish indicated or best suited for intended use.

2.1.5.1 High-Strength Bolts, Nuts, and Washers

ASTM A 325, or ASTM A 490.

2.1.5.2 Bolts, Nuts, and Washers (Other Than High-Strength)

a. Bolts and Nuts - ASTM A 307, Grade A, or ASTM A 320/A 320M, Austenitic Steel.

b. Bolts - ASME B18.2.1.

c. Nuts - ASME B18.2.2.

d. Washers

(1) Plain Washers - ASME B18.22.1, Type B.

(2) Lock Washer - ASME B18.21.1.

(3) Beveled Washers - ASTM F 436, Beveled.

PART 3 EXECUTION (Not Applicable)

-- End of Section --

From: Mills, Natalie R LRC
To: Rose, Shannon R LRC
Cc: Semmler, Jay A LRC
Subject: FW: Minutes from 4/17/03
Date: Tuesday, February 17, 2004 11:03:15 AM

IDEM's concurrence with the sampling plan

-----Original Message-----
From: STEVE WEST [mailto:SWEST@dem.state.in.us]
Sent: Thursday, May 01, 2003 1:43 PM
To: Mills, Natalie R
Cc: White, Bill G; Wilk-Kulczak, Cindy P; Semmler, Jay A; Miller,
Jennifer
Subject: Re: Minutes from 4/17/03

Natalie,
IDEM concurs with the sampling plan as amended. Please let me know if you need anything else from us. Ryan is out of the office for the next couple of weeks, so he will not be responding.
Steve

>>> "Mills, Natalie R LRC" <Natalie.R.Mills@lrc02.usace.army.mil> 05/01/03 9:22 >>>

> Steve,
>
> Attached you will find the minutes from our meeting on April 17, 2003.
> Also attached is the revised scope. I have made corrections to pages 2,3,
> and 4 as discussed in the meeting.
>
> Please review the scope as well as the minutes and forward your comments
> to me by Monday May 5, 2003. If you have no additional comments, please
> acknowledge this by sending your concurrence to the sampling/disposal plan
> as it stands.
>
> Please forward to Ryan for his review.
>
> Thanks,
> Natalie
>
>
>
> <<Scope.doc>> <<Meeting with IDEM.doc>>

From: Molnar, Mike
To: "Shannon.R.Rose@lrc02.usace.army.mil"
Subject: RE: Coastal Zone Management Program
Date: Monday, January 12, 2004 10:20:17 AM

Shannon,

If everything proceeds as planned the Federal Consistency component of CZM will be implemented in Indiana effective March 2004. You can include language in the permit applications indicating why the permit is being sought. However, it is my understanding that you would be required to obtain the permit regardless of the status of Federal Consistency in Indiana.

Mike

> -----Original Message-----
> **From:** Shannon.R.Rose@lrc02.usace.army.mil [mailto:Shannon.R.Rose@lrc02.usace.army.mil]
> **Sent:** Wednesday, January 07, 2004 4:52 PM
> **To:** mmolnar@dnr.state.in.us
> **Subject:** RE: Coastal Zone Management Program
>
> **Hi Mike-**
>
> **We are about finished with our 50% plans and specs for the obstruction removal, for which we will be applying for a Floodway Permit and 401 Water Quality Certification. If we submit the application for the permits in February of this year, do you still want me to include language in the cover letter to IDEM and IDNR, stating that the permit is sought under the Federal Consistency component of the CZMP?**
>
> **Thanks in advance for your help,**
> **Shannon**
>
>> -----Original Message-----
>> **From:** Molnar, Mike [mailto:mmolnar@dnr.state.in.us]
>> **Sent:** Friday, September 12, 2003 11:05 AM
>> **To:** 'Shannon.R.Rose@lrc02.usace.army.mil'
>> **Subject:** RE: Coastal Zone Management Program
>>
>> Shannon,
>>
>> We have a draft guidance document, which Steve Lucas compiled. The network within state agencies will be established within the next month. In the meantime, you should submit any applicable permit applications, and include a letter to the agency stating that the permit is being sought under the Federal Consistency component of the state Coastal Zone Management Program. Each agency will be responsible for issuing individual consistency determinations. The final consistency determination will be issued by the LMCP once all individual agency determinations have been rendered. There are some issues that still need addressed regarding timing of consistency determinations by the individual agencies. The issue of blanket determinations for projects that are permitted for X number of years still needs to be discussed and resolved.
>>
>> The state consistency guidelines will be reviewed by the Natural Resources Commission at the January, 2004 meeting. In the interim I suggest that you seek the appropriate state permits for the project.
>>
>> I hope this provides additional guidance for you. Please let me know if you have any questions.
>>
>> Mike Molnar
>>
>> Lake Michigan Coastal Program Manager
>> DNR - Div. of Soil Conservation
>> 402 West Washington St; Rm W265
>> Indianapolis, IN 46204
>> Ph: 317-233-0132
>> Fax:317-233-3882

www.in.gov/dnr/lakemich/

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil [mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Friday, September 12, 2003 9:40 AM
To: mmolnar@dnr.state.in.us
Subject: RE: Coastal Zone Management Program

Mike-

Have you had a chance to compile some details regarding the consistency guidelines?

-Shannon

-----Original Message-----
From: Molnar, Mike [mailto:mmolnar@dnr.state.in.us]
Sent: Wednesday, September 03, 2003 3:25 PM
To: 'Shannon.R.Rose@lrc02.usace.army.mil'
Subject: RE: Coastal Zone Management Program

Shannon,

We are having a coordination meeting tomorrow. I should have more details for you by early next week regarding the federal consistency guidelines.

Mike

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil
[mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Wednesday, September 03, 2003 3:05 PM
To: mmolnar@dnr.state.in.us
Cc: jhebenstreit@dnr.state.in.us; swest@dem.state.in.us
Subject: FW: Coastal Zone Management Program

Mike-

There are still some holes that need to be filled in delineating what impacts the Coastal permit will have on the IHC schedule. Could you please provide the guidance that we need in order to fulfill the coastal requirements. You mentioned in your e-mail that we must follow the federal consistency guidelines. Do you have any documentation regarding these guidelines that you can send to me? I realize that you are still working out the details of the review process but, do you have an estimated time frame for review? Does this review run parallel to other permit reviews? I would appreciate any help on this subject and I look forward to your reply.

Thanks in advance,
Shannon

-----Original Message-----
From: Rose, Shannon R LRC
Sent: Wednesday, August 27, 2003 11:39 AM
To: 'Molnar, Mike'
Subject: RE: Coastal Zone Management Program

Mike-

The Corps was aware of the Federal Consistency requirement of the CZMA and that a 401 water quality certification is needed for the obstruction removal and waterloo barrier installation. But, what is unknown, is what specific impacts will your CZMP review have on our permitting for these activities? Will this review tack on additional time to

the permit process or can your review run in parallel to the other permitting activities (401 and Floodway)? Also, beneficial, would be approximately how long the review process will last. These questions will help us in scheduling all activities that need to be done before construction.

-Shannon

-----Original Message-----
From: Molnar, Mike [mailto:mmolnar@dnr.state.in.us]
Sent: Wednesday, August 27, 2003 9:59 AM
To: 'Shannon.R.Rose@lrc02.usace.army.mil'
Cc: Molnar, Mike
Subject: RE: Coastal Zone Management Program

Shannon,

As you may be aware, one of the components of the CZMA is the Federal Consistency requirement. Federal funding activates the requirement of Federal Consistency review as long as the funded project has reasonably foreseeable effects on a land or water use of Indiana's Lake Michigan Coastal Program Area.

A project requiring a permit from the ACOE under the Rivers and Harbors Act of 1899 might also need a Section 401 water quality certification of the Clean Water Act. IDEM is the state agency charged with reviewing and either granting, denying, or conditioning 401 water quality certifications under the Clean Water Act.

We are working out some of the details regarding the consistency review process. However, the federal consistency requirement became active when the LMCP was approved last year. Thus, your project is most likely subject to the federal consistency guidelines.

Let me know if you have any questions.

Mike Molnar

Lake Michigan Coastal Program Manager
DNR - Div. of Soil Conservation
402 West Washington St; Rm W265
Indianapolis, IN 46204
Ph: 317-233-0132
Fax:317-233-3882

www.in.gov/dnr/lakemich/

-----Original Message-----
From: Hebenstreit, Jim
Sent: Wednesday, August 27, 2003 9:36 AM
To: 'Shannon.R.Rose@lrc02.usace.army.mil'
Cc: Molnar, Mike
Subject: RE: Coastal Zone Management Program

Shannon:

By copy of this e-mail I am forwarding your inquiry to Mike Molnar the head of the State's Coastal Program. I trust Mike will provide you with the information you are seeking. If you have questions regarding our permit process I would be happy to address those.

Jim

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil
[mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Tuesday, August 26, 2003 9:18 AM
To: jhebenstreit@dnr.state.in.us
Subject: Coastal Zone Management Program

Good morning Jim,

I am currently the Product Lead for the Obstruction Removal Permitting on the Indiana Harbor and Canal dredging and disposal project. I have been asked to get in touch with you regarding the new Coastal Zone Management Program and what impacts it may have on the permitting process. Could you please provide me with some information regarding this program and what impacts it may have on the IHC project?

Thank you in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers
111 North Canal Street, 6th Floor
Chicago, Illinois 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2141
shannon.r.rose@usace.army.mil

From:	Stephen Davis
To:	Rose, Shannon R LRC
Cc:	Brigid J. Briskin; James Hebenstreit; Rich Saichek
Subject:	FW-22,792; RE: Indiana Harbor and Ship Canal, Obstruction Removal for Waterloo Barrier
Date:	Monday, April 12, 2004 12:47:03 PM
Attachments:	IndianaHarborCanalFW22792-031804.htm

Shannon Rose: (Chicago Corps - Environmental Engineering; 312-846-5521)

= = = = =(1) PERMIT NUMBER: FW-22,792
The following DNR web site (Permit Application Database) can be used to track the progress of the Corps permit application for the "obstruction removal project for the Waterloo Barrier at the Indiana Harbor Canal" FW-22,792, submitted to DNR on 03/17/2004, and is scheduled to be awarded this September (2004).

http://www.in.gov/dnr/water/permits/index.html

The project description on this web page (see attached file) still appears to be in a rough draft form and is incomplete at this time, and the 'location' description has some typo's.

= = = = =(2) NO CONTACT PERSON AVAILABLE YET:
The project description is probably incomplete because "staff assignments" to handle this permit application have not been made yet (see the web site information). So, I do 'not' have a specific name as a contact person for submitting the most recently received 'certified mail receipt' card (green card), and Post Office confirmation letter stating that the last card was delivered.
= = = = =

= = = = =(3) REFER TO FW-22,792
In your cover letter - when you submit this information, if you refer to the application number FW-22,792 I'm sure the card and confirmation letter will make it into the correct file.
= = = = =

Let me know if there are any other questions.

All for now --- Stephen Davis IDNR Lake Michigan Specialist

-----Original Message-----
From: Rose, Shannon R LRC [mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Friday, April 09, 2004 11:35 AM
To: 'Stephen Davis'
Cc: Briskin, Brigid J LRC
Subject: RE: Indiana Harbor and Ship Canal, Obstruction Removal for Waterloo Barrier

Hi Steve,

I spoke to Richard Saichek today, and he recommended that I inform you that we submitted a Floodway permit for the obstruction removal project (IHC) on 3/17. He said that in doing this you can maybe check in on it and see how it is progressing through the review process. We are hoping to award this

DNR Division of Water

Division of Water
Indiana Department of Natural Resources
Permit Application Information Report

Mon Apr 12 2004 **09:24:42**

Application #: FW-22792

Water Body: Indiana Harbor Canal

Applicant: East Chicago Waterway Management District
Christine Brooks, Director
4522 Indianapolis Boulevard
East Chicago, IN 46312-3227

Agent: US Army Corps of Engineering, Chicago District
Bill White, Project Manager
111 North Canal Street, Suite 600
Chicago, IL 60606

Description:

*Approximately _____' of channel has been cleared of all brush, trees, and debris. The channel has also been restored to an average width of _____' and side slopes of _____. Details of the project are contained in information and plans received at the Division of Water on _____ __, ____.

Location - Downstream End:
The project is on the Lake George Canal in Eat Chicago in Lake County. The northern project limit is 260 feet landward from the sheet piles in the Lake George Canal and the south limit is 75 feet into the canal. The project extends west to the CSX Rialroad spur and east to Indianapolis Boulevard.

Location - Upstream End:

Downstream End:		**Upstream End:**
At/Near:	near	At/Near:
City:	East Chicago	City:
Civil Township		Civil Township
County and #:	Lake 45	County and #:
Quadrangle:		Quadrangle:
Section:		Section:
Township:		Township:
Range:		Range:
UTM North		UTM North
UTM East		UTM East

Staff:
Administrative:
Environmental:
Technical:

History:
Application Received: 03/18/2004
DNR Public Notice
Public Hearing Petition Filed
Public Hearing Scheduled
Public Hearing Held

Review Status	**Review Requested**	**Review Returned**
Environmental		
Technical		
Historic Preservation		
Law Enforcement		

Abeyance Status	Information Requested	Information Received
Administrative		
Environmental		
Technical		
Historic Preservation		

Action:
Action Taken
Taken on

Skip Ender Navigation

accessIndiana

Agency Listing Policies Text Only Contact Webmaster Help Search IN.

contract this September.

Also, I wanted to ask you another question. Brigid Briskin who filled the application out, only received 4 out of 6 of the certified mail receipts back in the mail (for the adjacent landowners) and sent only copies of the 4 she had received with the application. She has since then received another one and has received confirmation from the post office that the other was delivered but, has not received the green slip in the mail for the last one. She wants to go ahead and mail in a copy of the one she received and a copy of the post office confirmation for the other one but, wants to know if there is a reference number for the permit application that she can reference in the letter. Can you see if you can find out that reference number for me? Also, is there a specific person she should address the letter to? That way we can make sure the copies find their way to the application.

I appreciate your help on this and let me know if you have any questions.
-Shannon

-----Original Message-----
From: Stephen Davis [mailto:davisdnr@netnitco.net]
Sent: Monday, December 29, 2003 3:57 PM
To: Rose, Shannon R
Cc: Brian Breidert-_LKMich; Mike Neyer; James Hebenstreit
Subject: RE: Indiana Harbor and Ship Canal, Obstruction Removal for Waterloo Barrier

Shannon Rose: (Chicago Corps, Environmental Engineering, 312-846-5521)
Attached is DNR's response to your e-mail, inquiring whether a silt-curtain would be required during work in the Lake George Branch of the Indiana Harbor and Ship Canal:

(1) during the repeated installation and removal of a temporary four-sided sheet-steel-pile-box (30' x 15') at 3 locations, needed for the removal of sections of abandoned pipes; and during the moving and/or removal of existing toe-stone along the existing wall where the box will be placed, --- in preparation for the installation of the Waterloo System (groundwater barrier) around the confined disposal facility (CDF) at the ECI site in East Chicago on Lake Michigan;
and

(2) during installation of the Waterloo System (groundwater barrier) around the ECI CDF site following site preparation.

= = = = =
Also attached is a copy of DNR's permit requirements for the Indiana Harbor and Ship Canal provided on Wednesday, September 04, 2002 12:00 PM.
= = = = =
Let me now if you have any questions!

All for now --- Stephen E. Davis IDNR Lake Michigan Specialist

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil
[mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Monday, December 15, 2003 12:25 PM
To: davisdnr@netnitco.net

Subject: FW: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

-----Original Message-----
From: Rose, Shannon R LRC
Sent: Monday, December 15, 2003 12:16 PM
To: 'sdavis@dem.state.in.us'
Cc: Henisey, Allison M LRC
Subject: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

Hi Steve,

My name is Shannon Rose, and I work in the Environmental Engineering Section at the U.S. Army Corps of Engineers. I am currently working on a team to complete the plans & specs for the obstruction removal, for the installation of the waterloo barrier. We have changed our plan on how we are going to perform the obstruction removal and I thought I would run it by you and get your opinion as to whether or not you feel silt curtains should be included. I realize that in some situation silt curtains are ineffective (high velocity or great water depths) and in some cases, cofferdams can act as a silt curtain.

The team's plan is to drive sheet pile (one at a time) just South of the existing sheet pile wall, with interlocks so that it forms a 4 sided box. There will hardly negligible space in between the existing sheet pile and this interlocked metal box. The sheet pile, once driven, will not be watertight but, the water that can escape through the interlocks will be negligible. In fact once they start removing sediment, the water will probably flow into the box. They are planning on setting up a brace inside this box to support the sheet pile sides. Then they will mechanically dredge the sediment from inside the box to the top of the pipes and cut and remove a 10 foot section. We are planning on using either a modified hydraulic excavator (not a hydraulic dredge) or modified clamshell bucket (so that they are watertight). The sediment once removed will be placed in roll-off boxes and disposed of off site. Once the sediment is removed, there may be a slight problem in pulling out the sheet pile, so they are tossing the idea around to backfill the metal box with maybe about 4 or 5 feet of clean sand so that they can pull the sheet pile out. The sheet pile will be pulled out one by one and moved to another section where they will have to be driven again. This is due to the fact that we have three (3) different areas where pipes are located. Using this box structure will reduce the amount of sediment to dispose of from 10,000 cubic yards to about 1250 cubic yards. Do you feel that it is necessary to include silt curtains in the specs considering the changes we have made to minimize the amount of sediment removed, and resuspension?

Thanks in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers
111 North Canal Street, 6th Floor
Chicago, Illinois 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2141
shannon.r.rose@usace.army.mil

From:	Stephen Davis
To:	Rose, Shannon R
Cc:	Brian Breidert-_LKMich; Mike Neyer; James Hebenstreit
Subject:	RE: Indiana Harbor and Ship Canal, Obstruction Removal for Waterloo Barrier
Date:	Monday, December 29, 2003 4:56:40 PM
Attachments:	SheetSteelPileBoxSiltCurtainRequired122903.doc IndianaHarborDredgingDNRRequirements090402.doc

---

Shannon Rose: (Chicago Corps, Environmental Engineering, 312-846-5521)

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(1) during the repeated installation and removal of a temporary four-sided sheet-steel-pile-box (30' x 15') at 3 locations, needed for the removal of sections of abandoned pipes; and during the moving and/or removal of existing toe-stone along the existing wall where the box will be placed, --- in preparation for the installation of the Waterloo System (groundwater barrier) around the confined disposal facility (CDF) at the ECI site in East Chicago on Lake Michigan;

and

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= = = = =

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= = = = =

Let me now if you have any questions!

All for now --- Stephen E. Davis IDNR Lake Michigan Specialist

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil [mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Monday, December 15, 2003 12:25 PM
To: davisdnr@netnitco.net
Subject: FW: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

-----Original Message-----

From: Rose, Shannon R LRC

Sent: Monday, December 15, 2003 12:16 PM

To: 'sdavis@dem.state.in.us'

Cc: Henisey, Allison M LRC

Subject: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

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ineffective (high velocity or great water depths) and in some cases, cofferdams can act as a silt curtain.

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Do you feel that it is necessary to include silt curtains in the specs considering the changes we have made to minimize the amount of sediment removed, and resuspension?

Thanks in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers
111 North Canal Street, 6th Floor
Chicago, Illinois 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2141
shannon.r.rose@usace.army.mil

DNR

INDIANA DEPT OF NATURAL RESOURCES **JOHN R. GOSS, DIRECTOR**

Division of Water
100 West Water Street
Michigan City, Indiana 46360
219-874-8316
Fax: 219-879-2499

Date: 12 / 29 / 2003

To: Shannon R. Rose Environmental Engineering, Chicago Corps 312-846-5521
From: Stephen E. Davis IDNR Lake Michigan Specialist
Summary: A silt-curtain is required “during each” sheet-pile driving and removal action, and when existing toe-stone along the existing wall is being moved or removed. Once the sheet-steel-pile-box is in place, the silt-curtain “may be removed” from around the box during the dredging action, and cutting and removal of 10-foot sections of pipe, unless excessive silt is observed leaking out of the box.

= = = = = = = = = = DNR RESPONSE: (to Corps Questions (see e-mail below))
A SILT-CURTAIN IS REQUIRED DURING REPEATED DRIVING AND REMOVAL OF INDIVIDUAL PILINGS OF A TEMPORARY "SHEET-STEEL-PILING-BOX" SEDIMENT BARRIER:
The Corps proposes to use a temporary "sheet-steel-piling-box" as a sediment / silt barrier, instead of using a silt-curtain, at certain locations on the Lake George Branch of the Indiana Harbor & Ship Canal where sections of existing pipes must be removed before installation of the Waterloo System groundwater barrier.

RECOMMENDATION: DNR requires that a silt-curtain "must be in place" around the immediate work area "prior to and during" the driving and removal of the individual sheet steel pilings making up the four sides of the temporary sheet-steel-piling-box. A silt-curtain "must also be in place " during the relocation or removal of any existing toe-stones along the existing wall, which would be necessary before the driving of any pilings.

Once the toe-stones have been moved and the sheet-steel-piling-box is in place - the silt-curtain around the immediate work area and sheet-steel-piling-box "may be removed", leaving just the sheet-steel-piling-box as the functioning "silt barrier". Use of the silt-curtain is "not required" during the localized dredging and pipe cutting and removal of the 10-foot pipe sections being conducted inside the box - unless excessive suspended sediment is observed leaking from inside the box into the Ship Canal waters, which could then disperse contaminants into the waters of Lake Michigan.

The silt-curtain "must again be in place" when the individual pilings of the sheet-steel-piling-box are being pulled out of the box at one location, for reuse at the next work area. This is required because of the adhesion of contaminated bottom sediment to the piling sides, which could result in suspension of that contaminated bottom sediment into the water column as each piling is being dragged through the water after removal from the bottom, and again as the same piling is being lowered back into and dragged through the water for positioning and re-driving at the next work site.

NOTE: A silt-curtain is "still required" for any other in-water-work that is not contained within the confines of the temporary "sheet-steel-piling-box" described above, including but not limited to: (1) the placement of pipes leading from the wastewater treatment plant into the floodway of the Lake George Branch of the ship canal; (2) other activities related to the construction of the new water tight sheet piling wall (Waterloo System) waterward of the existing sheet pile wall of the Lake George canal, including the moving of existing toe stone to accomplish this construction in the floodway; and (3) placement of barge tie-up pilings in the Lake George canal.
= = = = = END OF RESPONSE

-----Original Message-----
From: Shannon.R.Rose@lrc02.usace.army.mil [mailto:Shannon.R.Rose@lrc02.usace.army.mil]
Sent: Monday, December 15, 2003 12:25 PM
To: davisdnr@netnitco.net
Subject: FW: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

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From: Rose, Shannon R LRC
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Cc: Henisey, Allison M LRC
Subject: Indiana Harbor and Canal, Obstruction Removal for Waterloo Barrier

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Do you feel that it is necessary to include silt curtains in the specs considering the changes we have made to minimize the amount of sediment removed, and resuspension?

Thanks in advance,
Shannon

Shannon R. Rose
Environmental Engineering
U.S. Army Corps of Engineers
111 North Canal Street, 6th Floor
Chicago, Illinois 60606
Telephone: (312) 846-5521
Facsimile: (312) 353-2141
shannon.r.rose@usace.army.mil

SUPPLEMENTAL INFORMATION SHEET (1 of 2)

= = = = = Information from Shannon Rose (Chicago Corps) on 12-19-03:

Summary: Below is a request by the Chicago Corps of Engineers for DNR's opinion on whether a "silt-curtain" is needed while the Corps is repeatedly driving and then removing a temporary "sheet-steel-pile-box" on the Lake George Branch of the Indiana Harbor and Ship Canal. This box is to serve as a substitute "(solid) silt-barrier" (instead of using a silt-curtain) during localized dredging and removal of obstructions on the waterside of the existing sheet pile wall -- for installation of the Waterloo System (groundwater barrier). Use of this sheet-steel-piling-box will reduce the volume of dredged sediment from 10,000 cubic yards down to 1,250 cubic yard by restricting the work to specific localized areas where abandoned pipelines exist, and must be cut and removed. (see the e-mail)

(NOTE: I talked to Shannon Rose (Chi. Corps, 312-846-5521) at 9:46 on 12-19-03 to make sure my "assumptions" above were correct. She confirmed my assumptions were correct. She also provided the following additional information. The sheet-steel-piling-box is 30 feet long and 15 feet wide. The box will be constructed at 3 different locations, over 12 known pipelines, which extend from the north side of the Lake George Branch canal to the south side. These pipes have been abandoned, decontaminated, and grout filled on land by EPA. The box will allow divers to cut a 15-foot section of pipe out and remove the section for decontamination and disposal. The ends of the remaining pipes, left on the bottom, will be grouted for closure. The Waterloo System wall will then be constructed where these pipe sections were removed. There is one pipe location that is unknown, which will be located and cut out as they proceed with construction of the Waterloo System wall.)

(See the "attached file" containing notes from the "Corps Annual Permit and Regulatory Requirements" meeting on February 14, 2002, and the Hebenstreit response sent on September 4, 2002 to the Corps - containing DNR's previously provided DNR requirements for Construction in the Floodway.)

SUPPLEMENTAL INFORMATION SHEET (2 of 2)

= = = = = = = Discussion

Excerpt from James Hebenstreit's (DNR) information sent to the Corps on September 4, 2002: (see attached file)

In summary: A DNR permit is required for: (1) dredging any non-federal portion of the Indiana Harbor Channel; (2) any construction that will occur on land that lies within the 100-year floodway; (3) the placement of pipes leading from the wastewater treatment plant into the floodway of the Lake George Branch of the ship canal; (4) construction of a new water tight sheet piling wall (Waterloo System), waterward of the existing sheet pile wall of the Lake George canal, including the moving of existing toe stone to accomplish this construction in the floodway; and (5) placement of barge tie-up pilings in the Lake George canal.

= = = = = = = DNR Fish and Wildlife concerns:

The Corps needs to remove obstructions from along the existing wall of the Lake George Branch of the Indiana Harbor & Ship Canal in order to install the Waterloo System wall, designed to prevent groundwater migration from the Confined Disposal Facility (ECI Site). The ECI site will eventually hold all of the contaminated sediment dredged from the Indiana Harbor canal, so groundwater migration off the site must be prevented.

Steve Davis briefly talked to Brian Breidert (DNR Lake Michigan fisheries biologist; 219-874-6824) the morning of 12-18-03 about this.

Under normal circumstances - if the repeated driving and pulling of the pilings of this temporary sheet-steel-pile-box were done outside the normal "stream closure windows" (streams are closed to construction from "March 15 to June 15" and from "July 15 to November 30") no silt screen would typically be necessary.

However, because of the highly contaminated nature of the sediments in the Indiana Harbor & Ship Canal area, and the potential for resuspending contaminated bottom sediments that could then migrate out into the waters of Lake Michigan, a silt-curtain must be installed and in place "every time" sheet steel pilings are being driven and removed, and when any existing toe-stones along the existing wall area are being moved or removed.

It is "not necessary" to maintain the silt-curtain in place around the "sheet-steel-piling-box" during the dredging or obstruction-removal process occurring inside the temporary box, because it is proposed the box will act as the silt barrier. However, if excessive suspended sediment is observed leaking from between the pilings of the box during either the dredging process or during removal of the obstructions, the silt-screen should temporarily be re-installed until the conditions no longer exists.

Bottom Line:

A silt-curtain must be in place around the immediate work area during the time-frame of driving and removing the individual sheet steel pilings which make up the four sides of a temporary sheet-steel-piling box, which is to act as a solid sediment/silt barrier during dredging and obstruction removal along the existing wall of the Lake George Branch of the Indiana Harbor & Ship Canal. The silt-curtain "does not" need to be maintained in place during the actual dredging and obstruction removal inside the box - unless excessive suspended sediment is observed leaking from the box into the Ship Canal waters and Lake Michigan.

= = = = = = = = = = = = = = =

From: Hebenstreit, Jim [jhebenstreit@dnr.state.in.us]
Sent: Wednesday, September 04, 2002 12:00 PM
To: 'susanne.j.davis@usace.army.mil'
Cc: Davis, Steve; Faatz, Wayne
Subject: Permit requirements for Indiana Harbor Ship Canal Dredging

Susanne:

On February 14, 2002 Steve Davis of my staff attended the Corps' Annual Permit and Regulatory Requirements meeting at the Riley Park Social Center in East Chicago, Indiana. During that meeting the Corps requested all regulatory agencies identify any permit requirements the Corps needed to comply with to complete the dredging of the Indiana Harbor and Ship Canal.

During that meeting Steve Davis indicated the several issues might require a DNR "Construction in a Floodway" permit. Based on the information provided in the handout material and discussion by Corps personnel describing the details of the general information we offer the following comments:

It has been determined that the following planned activities will fall within the State's jurisdiction under Indiana Code 14-28-1 and/or 19-29-2 and a DNR "Construction in a Floodway" permit will be required:

1) dredging conducted outside the Federal Navigable Channel in adjacent private boat dock slips areas

2) construction of the planned 3 cell dewatering facility, and any part of the facility, including the inspection trench (Spring 2002), and the placement of the bentonite "cutoff wall", and the wastewater treatment plant, at the ECI site if it was determined to be within the 100-year floodway.

3) construction of the discharge pipes which will carry the treated wastewater from the new wastewater treatment plant into the Lake George Branch of the ship canal, which crosses the floodway

4) construction of the "Waterloo System" water-tight sheet piling wall that will be driven into the bottom of the Lake George Branch of the Indiana Harbor canal, immediately lakeward of the existing sheet steel wall of the canal, and the movement of existing stone at the toe of the existing sheet pile wall. An expected condition of the permit will require the installation of a temporary "silt-curtain" around the immediate site where the toe stone is being moved, and while the steel piling is being installed.

5) construction of the pilings located waterward of the new Waterloo sheet pile wall, which will be need to tie up the barges used for offloading of dredged material There was a questions about the submission of the DNR permit application and whether the application could be submitted electronically. There was also the question of whether the technical engineering plans could be provided by posting the information on the Corps of Engineers Indiana Harbor web site.

1) The permit application can be submitted electronically on-line through the DNR Division of Water web page site

www.state.in.us/dnr/water/

which will begin the permit review process. Instructions for permit submission and public notice requirements are also found at this web site.

2) However, the permit will be placed in abeyance until the technical information is received in hard copy (paper) form at the office of the DNR Division of Water.

3) Public notice must also be accomplished to the adjacent property owners that might be impacted by the construction or completion of this project.

4) There is a mandatory 30-day public notice permit that will begin once sufficient technical information has been received at the DNR Division of Water office, and proof (usually green certified mail return) that all adjacent property owners have been noticed of the project. During this 30-day public notice permit, DNR Division will also be reviewing the permit.

5) Following the date of issuance of the permit, there is an 18-day period in which the permit may be appealed by any one with standing to appeal the permit. A stay may be requested for part or all of the permit during this time period. The stay is extended an additional 15 days if this process is started.

The Department of Natural Resources conducts an internal review process of the permit application, in which all of the Divisions have an opportunity to review, comment, and add special conditions to the permit, necessary to protect the natural resources of the State of Indiana. An example of a special condition is the requirement to install a "silt screen" during the work associated with the waters of the Lake George Branch of the ship canal. The length of time for the DNR division review usually depends on how complicated the project is.

In summary: A DNR permit is required for: dredging any non-federal portion of the Indiana Harbor Channel; any construction that will occur on land that lies within the 100-year floodway; the placement of pipes leading from the wastewater treatment plant into the floodway of the Lake George Branch of the ship canal; construction of a new water tight sheet piling wall (Waterloo System), waterward of the existing sheet pile wall of the Lake George canal, including the moving of existing toe stone to accomplish this construction in the floodway; placement of barge tie-up pilings in the Lake George canal.

A copy of the floodway study for the project area can be viewed on line by going to: www.fema.gov and clicking on "FEMA Flood Map Store". If you would prefer for me to forward a copy of the floodway map, please let me know.

As I mentioned during our telephone conversation, Indiana has recently joined the Coastal Zone Management Program and as a result, the entire project would be subject to a Federal Consistency Review. We have not yet developed a formal process for conducting this review; however, I

would anticipate that the materials submitted for your permit applications could be used for this review also.

I apologize for the delay in getting you the information on Indiana's permit requirements and if you need additional information or if you have any questions about these permit issues, please contact me by e-mail or by telephone at 317-232-4165 or (toll free at 1-877-928-3755).

Jim Hebenstreit

Assistant Director

Division of Water

CDR

Air Monitoring

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT
CLAMSHELL BUCKET BRINGING SOIL OUT OF RIVER AND DUMPING INTO CONTAINMENT AREA

HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER
10'	Start 4' End SAME
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER
Start 45' End SAME	Start WSW End SAME

DESCRIBE EMISSIONS
Start NONE End SAME

EMISSION COLOR	IF WATER DROPLET PLUME
Start End	Attached ☐ Detached ☐

POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED
Start ABOVE CLAM & ABOVE SOIL End SAME

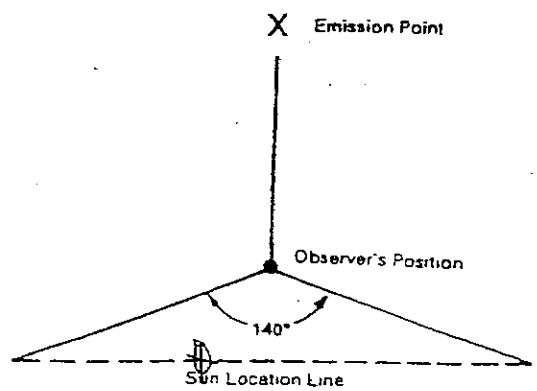
DESCRIBE PLUME BACKGROUND
Start SKY End SAME

BACKGROUND COLOR	SKY CONDITIONS
Start BLUE + WHITE End SAME	Start PT SUNNY End SAME
WIND SPEED	WIND DIRECTION
Start 10 End SAME	Start SW End SAME
AMBIENT TEMP	WET BULB TEMP / RH, percent
Start 75 End SAME	60

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
6/8/05	0830	0844

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OBSERVER'S NAME (PRINT)
STUART WILKINSON

OBSERVER'S SIGNATURE
Stuart Wilkinson
DATE 6/8/05

ORGANIZATION
E.Q.M.I.

CERTIFIED BY
E.T.A.
DATE 4/6/05

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT: PARKING LOT

HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER
0	Start -6' End SAME
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER
Start 15' End SAME	Start W End SAME

DESCRIBE EMISSIONS: Start NONE End

EMISSION COLOR	IF WATER DROPLET PLUME
Start End	Attached ☐ Detached ☐

POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: Start ABOVE PARKING LOT End SAME

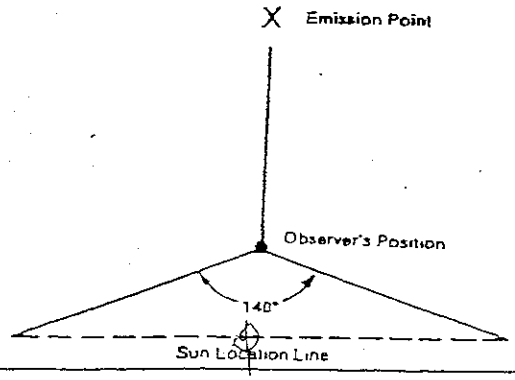
DESCRIBE PLUME BACKGROUND: Start PARKING LOT + TRAILER End

BACKGROUND COLOR	SKY CONDITIONS
Start GREY/BROWN End SAME	Start SUNNY End SAME
WIND SPEED	WIND DIRECTION
Start 6 End SAME	Start S End SAME
AMBIENT TEMP	WET BULB TEMP / RH, percent
Start 79 End SAME	42.7

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/20/05	1105	1114

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OBSERVER'S NAME (PRINT): STUART WILKINSON

OBSERVER'S SIGNATURE: Stuart Wilkinson — DATE: 6/20/05

ORGANIZATION: E.Q.M.I.

CERTIFIED BY: E.T.A. — DATE: 4/6/05

ADDITIONAL INFORMATION: CONTINUOUS READING MARKED EVERY 15 SEC OR WHEN EMISSIONS PRESENT

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT: ROAD TRAVEL ROUND TRIP	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT: ABOVE ROAD	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start N to W End SAME

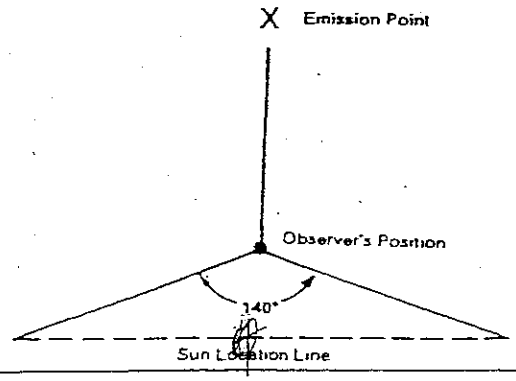
DESCRIBE EMISSIONS Start	End
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start	End

DESCRIBE PLUME BACKGROUND Start	End	
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
6/20/05	1127	1156

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OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT: Loading Boxes	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

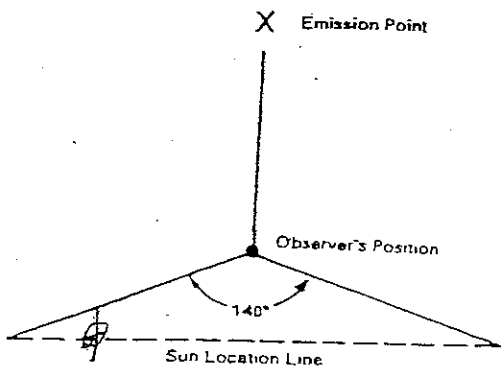
DESCRIBE EMISSION POINT	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER: Start End
DISTANCE FROM OBSERVER: Start End	DIRECTION FROM OBSERVER: Start NW End SAME

DESCRIBE EMISSIONS: Start End	
EMISSION COLOR: Start End	IF WATER DROPLET PLUME: Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: Start End	

DESCRIBE PLUME BACKGROUND: Start End		
BACKGROUND COLOR: Start End	SKY CONDITIONS: Start End	
WIND SPEED: Start End	WIND DIRECTION: Start End	
AMBIENT TEMP: Start End	WET BULB TEMP	RH, percent

SOURCE LAYOUT SKETCH — Draw North Arrow

Stack with Plume
Sun
Wind



OBSERVATION DATE	START TIME	END TIME
	1158	1216

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OBSERVER'S NAME (PRINT): STUART WILKINSON	
OBSERVER'S SIGNATURE: Stuart Wilkinson	DATE: 6/20/05
ORGANIZATION: E.Q.M.I.	
CERTIFIED BY: E.T.A.	DATE: 4/6/05
CONTINUED ON VEO FORM NUMBER	

ADDITIONAL INFORMATION

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
Loading Boxes	
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT	
ABOVE BOXES	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

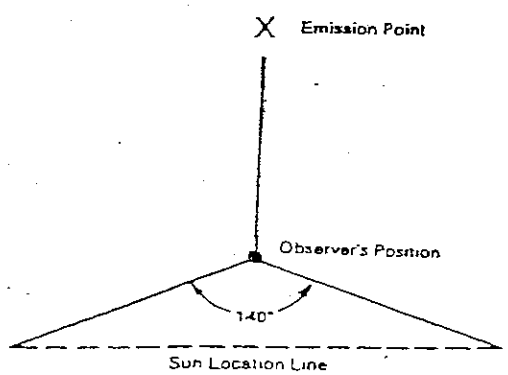
DESCRIBE EMISSIONS	
Start End	
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start End	

DESCRIBE PLUME BACKGROUND		
Start End		
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start 80 End	WET BULB TEMP	RH, percent

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/20/05	1357	1417

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OBSERVER'S NAME (PRINT)	
STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

ADDITIONAL INFORMATION

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT TRANSPORT #1	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT ABOVE TARPED BOX	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

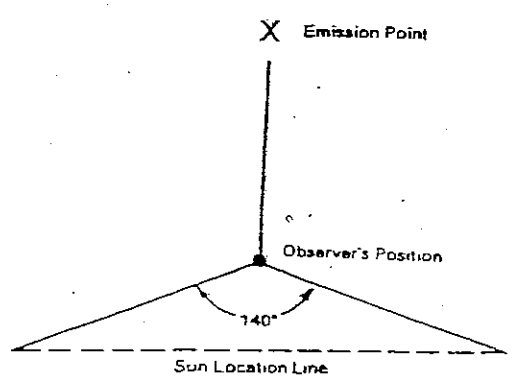
DESCRIBE EMISSIONS Start End	
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start End	

DESCRIBE PLUME BACKGROUND Start End		
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/20/05	1530	1537

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OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.R.	DATE 4/6/05

ADDITIONAL INFORMATION

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT TRANSPORT #2	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT ABOVE TARPED BOY	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

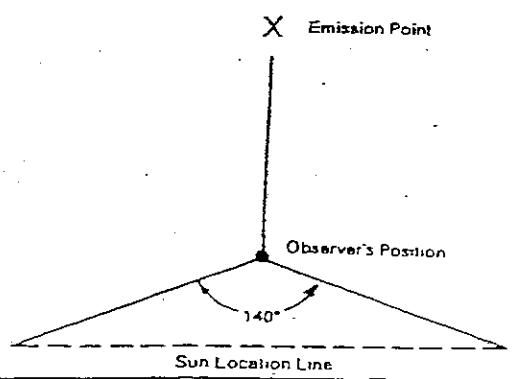
DESCRIBE EMISSIONS Start End	
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start End	

DESCRIBE PLUME BACKGROUND Start End		
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
	1549	1557

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4	0	0	0	0	
5	0	0	0	0	
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OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

DITIONAL INFORMATION

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT TRANSPORT #3	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT ABOVE TARPED BOX	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

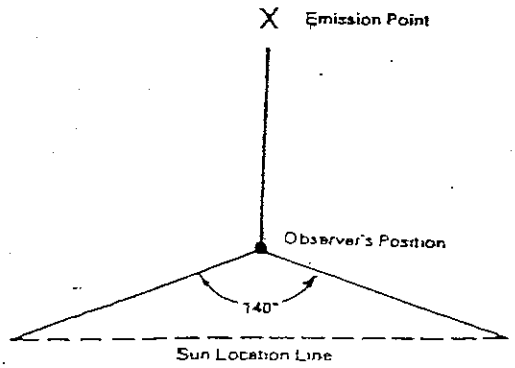
DESCRIBE EMISSIONS Start	End
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start	End

DESCRIBE PLUME BACKGROUND Start	End	
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/20/05	1609	1616

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
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8	0	0	0	0	
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OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

ITIONAL INFORMATION

CONTINUED ON VEO FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT TRANSPORT #4	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT ABOVE TARPED BOX	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

DESCRIBE EMISSIONS Start	End
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start	End

DESCRIBE PLUME BACKGROUND Start	End	
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

OBSERVATION DATE	START TIME	END TIME
6/20/05	1630	1637

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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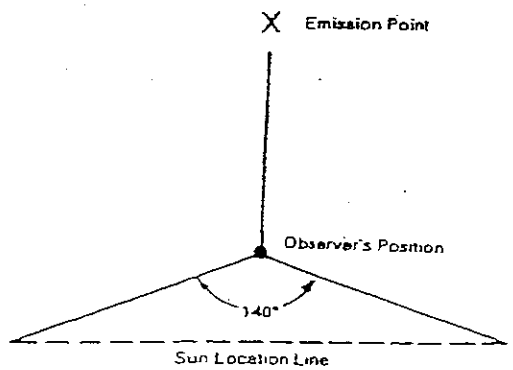
Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH

Draw North Arrow



OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/20/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

ADDITIONAL INFORMATION

CONTINUED ON VED FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME	
STREET ADDRESS	
CITY	STATE / ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER

PROCESS EQUIPMENT: ROAD TRAVEL	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

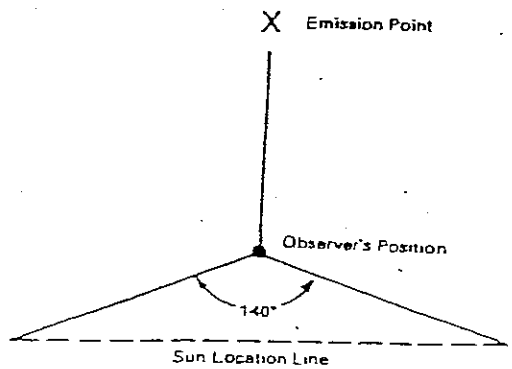
DESCRIBE EMISSION POINT: ABOVE ROAD	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER: Start / End
DISTANCE FROM OBSERVER: Start 200' / End	DIRECTION FROM OBSERVER: Start / End

DESCRIBE EMISSIONS: Start / End	
EMISSION COLOR: Start / End	IF WATER DROPLET PLUME: Attached ☐ / Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: Start / End	

DESCRIBE PLUME BACKGROUND: Start / End		
BACKGROUND COLOR: Start / End	SKY CONDITIONS: Start / End	
WIND SPEED: Start / End	WIND DIRECTION: Start / End	
AMBIENT TEMP: Start / End	WET BULB TEMP	RH, percent

Stack with Plume
Sun
Wind

SOURCE LAYOUT SKETCH — Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/20/05	1350	1356

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	5	
5	5	0	5	5	
6	0	0	5	0	
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OBSERVER'S NAME (PRINT): STUART WILKINSON	
OBSERVER'S SIGNATURE: Stuart Wilkinson	DATE: 6/20/05
ORGANIZATION: E.Q.M.I.	
CERTIFIED BY: E.T.A.	DATE: 4/6/05
CONTINUED ON VEO FORM NUMBER	

ADDITIONAL INFORMATION

VISIBLE EMISSION OBSERVATION FORM

No.

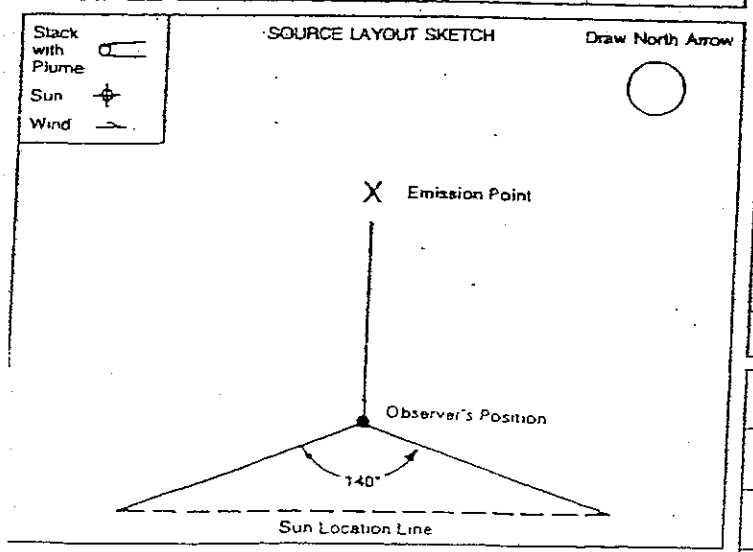
COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT: ROAD TRAVEL ROUND TRIP	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT: ABOVE ROAD	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

DESCRIBE EMISSIONS Start End	
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start End	

DESCRIBE PLUME BACKGROUND Start End		
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent



OBSERVATION DATE	START TIME	END TIME
6/21/04	0841	0848

MIN \ SEC	0	15	30	45	COMMENTS
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2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
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OBSERVER'S NAME (PRINT) STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/21/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05
CONTINUED ON VEO FORM NUMBER	

ADDITIONAL INFORMATION

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
ROAD TRAVEL	
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT	
ARDVIS ROAD	
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER Start End
DISTANCE FROM OBSERVER Start 20' End	DIRECTION FROM OBSERVER Start End

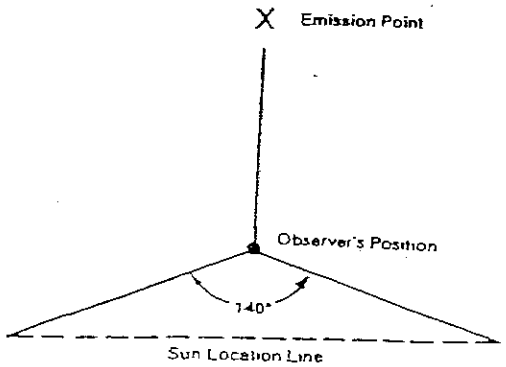
DESCRIBE EMISSIONS	
Start End	
EMISSION COLOR Start End	IF WATER DROPLET PLUME Attached ☐ Detached ☐
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED Start End	

DESCRIBE PLUME BACKGROUND		
Start End		
BACKGROUND COLOR Start End	SKY CONDITIONS Start End	
WIND SPEED Start End	WIND DIRECTION Start End	
AMBIENT TEMP Start End	WET BULB TEMP	RH, percent

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Draw North Arrow



OBSERVATION DATE	START TIME	END TIME
6/21/05	0900	0907

MIN \ SEC	0	15	30	45	COMMENTS
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2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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OBSERVER'S NAME (PRINT)	
STUART WILKINSON	
OBSERVER'S SIGNATURE Stuart Wilkinson	DATE 6/21/05
ORGANIZATION E.Q.M.I.	
CERTIFIED BY E.T.A.	DATE 4/6/05

ADDITIONAL INFORMATION

CONTINUED ON VEO FORM NUMBER

AIR MONITORING SUMMARY
WEEKLY REPORT

Project Title:	Indiana Harbor and Canal Confined Disposal Facility East Chicago, Indiana
Contract No.	W912P6-04-C-0006
Prepared by:	Environmental Quality Management, Inc. Cincinnati, Ohio
Reporting period:	06/06/05 through 06/12/05

Summary of Air Monitoring/Findings during Current Reporting Period:

- Sample Location: N: 1510946.07, E: 390914.01 and remained at this location for the week. First day of sampling 06/06/05.

- VOCs: No individual or 5-day average exceeded the action level for the respective constituents. All VOC Actual Reporting Limits were below Specification Reporting Limits of 1 ug/m^3.

- SVOCs: No individual or 5-day average exceeded the action level for the respective constituents. SVOC Actual Reporting Limits of 500 ng/m^3 (0.5 ug/m^3) were higher than the Specification Reporting Limit of 10 ng/m^3 (0.01 ug/m^3), but below the respective Notification Level. Napthalene Actual Reporting Limit was 1000 ng/m^3 (1 ug/m^3), but was below the Notification Level of 30 ug/m^3. Benzo(a)pyrene and Dibenzo(a,h)anthracene have Notification Levels of 0.4 ug/m^3 which was exceeded by the 0.5 ug/m^3 Actual Reported Limit, however both of these constituents were ND at this concentration. Elevated reporting limits were required to quantify positive results due to interferences.

- PCBs: No individual or 5-day average exceeded the action level for the sum of the congeners. Actual Reporting Limit of 1000 pg/m^3 (0.001 ug/m^3) was higher than the specification Reporting Limit of 10 pg/m^3 (0.001 ug/m^3). However, the Actual Reporting Limit remained below the Notification Level of 1 ug/m^3 for the sum of the congeners.

- Particulates: No individual exceedance of the action level of 10 ug/m^3 was experienced.

Projected Work during Next Reporting Period:

- Continue VOC, SVOC, PCB, and Particulate monitoring during sediment exposure. Dredging of Area 3 to continue and pipe removal.

Outstanding Action Items:

- None

Summary of Exceedences of the COC Notification Level

- See above

Summary of Contacts with Client or State Government during Reporting Period:

- None

Problems Encountered/Resolved:

- None

AIR MONITORING SUMMARY
WEEKLY REPORT

Project Title:	Indiana Harbor and Canal Confined Disposal Facility East Chicago, Indiana
Contract No.	W912P6-04-C-0006
Prepared by:	Environmental Quality Management, Inc. Cincinnati, Ohio
Reporting period:	06/13/05 through 06/19/05

Summary of Air Monitoring/Findings during Current Reporting Period:

- Sample Location: Positioned daily based upon work area and wind direction. Refer to daily Obstruction Removal Air Monitoring Location Map.

- VOCs: No individual or 5-day average exceeded the action level for the respective constituents. All VOC Actual Reporting Limits were below Specification Reporting Limits of 1 ug/m^3.

- SVOCs: No 5-day average exceeded the action level for the respective constituents. SVOC Actual Reporting Limits of 500 ng/m^3 (0.5 ug/m^3) were higher than the Specification Reporting Limit of 10 ng/m^3 (0.01 ug/m^3), but below the respective Notification Levels. Napthalene Actual Reporting Limit was 1000 ng/m^3 (1 ug/m^3), but was below the Notification Level of 30 ug/m^3. Benzo(a)pyrene and Dibenzo(a,h)anthracene have Notification Levels of 0.4 ug/m^3 which was exceeded by the 0.5 ug/m^3 Actual Reporting Limit, however both of these constituents were ND at this concentration. Elevated reporting limits were required to quantify positive results due to interferences.

- PCBs: No individual or 5-day average exceeded the action level for the sum of the congeners. Actual Reporting Limit of 1000 pg/m^3 (0.001 ug/m^3) was higher than the specification Reporting Limit of 10 pg/m^3 (0.001 ug/m^3). However, the Actual Reporting Limit remained below the Notification Level of 1 ug/m^3 for the sum of the congeners.

- Particulates: No individual exceedance of the action level of 10 ug/m^3 was experienced.

Projected Work during Next Reporting Period:

- Continue VOC, SVOC, PCB, and Particulate monitoring during sediment exposure. Relocate cofferdam to Dredge Area 2 and install. Load out sediment from work at Dredge Area 3. Dredge out Dredge Area 2

Outstanding Action Items:

- None

Summary of Exceedences of the COC Notification Level

- See above

Summary of Contacts with Client or State Government during Reporting Period:

- None

Problems Encountered/Resolved:

- None

AIR MONITORING SUMMARY
WEEKLY REPORT

Project Title:	Indiana Harbor and Canal Confined Disposal Facility East Chicago, Indiana
Contract No.	W912P6-04-C-0006
Prepared by:	Environmental Quality Management, Inc. Cincinnati, Ohio
Reporting period:	06/20/05 through 06/26/05

Summary of Air Monitoring/Findings during Current Reporting Period:

- Sample Location: Positioned daily based upon work area and wind direction. Refer to daily Obstruction Removal Air Monitoring Location Map.

- VOCs: No individual or 5-day average exceeded the action level for the respective constituents. All VOC Actual Reporting Limits were below Specification Reporting Limits of 1 ug/m^3.

- SVOCs: SVOC Actual Reporting Limits of 500 ng/m^3 (0.5 ug/m^3) were higher than the Specification Reporting Limit of 10 ng/m^3 (0.01 ug/m^3), but below the respective Notification Levels. Napthalene Actual Reporting Limit was 1,000 ng/m^3 (1 ug/m^3), but was below the Notification Level of 30 ug/m^3. Benzo(a)pyrene and Dibenzo(a,h)anthracene have Notification Levels of 0.4 ug/m^3 which was exceeded by the 0.5 ug/m^3 Actual Reporting Limit, however both of these constituents were ND at this concentration. Elevated reporting limits were required to quantify positive results due to interferences.

  On Sunday, 6/26/05, an excursion of Napthelene 5-day average was experienced and USACE was promptly notified. This was due to unusually high results for 6/25/05 and 6/26/05. It should be noted that 6/25/05 and 6/26/05 were weekend days with no construction activities taking place and stockpiles were also covered. EQ and USACE discussed and believe the results do not relate to construction activities, but rather high winds.

- PCBs: No individual or 5-day average exceeded the action level for the sum of the congeners. Actual Reporting Limit of 1000 pg/m^3 (0.001 ug/m^3) was higher than the specification Reporting Limit of 10 pg/m^3 (0.001 ug/m^3). However, the Actual Reporting Limit remained below the Notification Level of 1 ug/m^3 for the sum of the congeners.

- Particulates: No individual exceedance of the action level of 10 ug/m^3 was experienced.

Projected Work during Next Reporting Period:

- Continue VOC, SVOC, PCB, and Particulate monitoring during sediment exposure. Cut and remove pipes from Dredge Area 2, dry dredge material, and general continue site work.

Outstanding Action Items:

- Continue to closely monitor Napthalene.

Summary of Exceedences of the COC Notification Level

- See above

Summary of Contacts with Client or State Government during Reporting Period:

- Discuss excursion of Napthelene 5-day average.

AIR MONITORING SUMMARY
WEEKLY REPORT

Project Title:	Indiana Harbor and Canal Confined Disposal Facility East Chicago, Indiana
Contract No.	W912P6-04-C-0006
Prepared by:	Environmental Quality Management, Inc. Cincinnati, Ohio
Reporting period:	06/27/05 through 07/03/05

Summary of Air Monitoring/Findings during Current Reporting Period:

- Sample Location: Positioned daily based upon work area and wind direction. Refer to daily Obstruction Removal Air Monitoring Location Map.

- VOCs: No individual or 5-day average exceeded the action level for the respective constituents. All VOC Actual Reporting Limits were below Specification Reporting Limits of 1 ug/m^3.

- SVOCs: SVOC Actual Reporting Limits of 500 ng/m^3 (0.5 ug/m^3) were higher than the Specification Reporting Limit of 10 ng/m^3 (0.01 ug/m^3), but below the respective Notification Levels. Napthalene Actual Reporting Limit was 1,000 ng/m^3 (1 ug/m^3), but was below the Notification Level of 30 ug/m^3. Benzo(a)pyrene and Dibenzo(a,h)anthracene have Notification Levels of 0.4 ug/m^3 which was exceeded by the 0.5 ug/m^3 Actual Reporting Limit, however both of these constituents were ND at this concentration. Elevated reporting limits were required to quantify positive results due to interferences.

  On Monday, 6/276/05 through Saturday 7/2/05, an exceedance of Napthelene 5-day average was experienced and USACE was promptly notified daily. This was due to unusually high results for 6/25/05 through 6/29/05. It should be noted that 6/25/05 and 6/26/05 were weekend days with no construction activities taking place and stockpiles were also covered. EQ and USACE discussed and believe the results do not relate to construction activities, but rather high winds and high air temperatures.

- PCBs: No individual or 5-day average exceeded the action level for the sum of the congeners. Actual Reporting Limit of 1000 pg/m^3 (0.001 ug/m^3) was higher than the specification Reporting Limit of 10 pg/m^3 (0.001 ug/m^3). However, the Actual Reporting Limit remained below the Notification Level of 1 ug/m^3 for the sum of the congeners.

- Particulates: No individual exceedance of the action level of 10 ug/m^3 was experienced.

Projected Work during Next Reporting Period:

- Continue VOC, SVOC, PCB, and Particulate monitoring during sediment exposure. Complete cutting and removal of pipes from Dredge Area 2, survey cut pipes, backfill Dredge Area 2, dry dredge material, and continue general site work.

Outstanding Action Items:

- Continue to closely monitor Napthalene.

Summary of Exceedences of the COC Notification Level

- See above

Summary of Contacts with Client or State Government during Reporting Period:

- Discuss exceedance of Napthelene 5-day average.

Indiana Harbor and Canal Confined Disposal Facility
Obstructions Removal
Contract No. W912P6-04-C-0006

Particulates

		week of 6/5/2005													
	Limit	6/5/2005		6/6/2005		6/7/2005		6/8/2005		6/9/2005		6/10/2005		6/11/2005	
pDR-1000	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3
Reading 1	10.0					10:36	0.001	10:03	0.024	10:19	0.000	10:19	0.066	NR	
Reading 2	10.0					12:52	0.003	12:18	0.028	12:31	0.000	12:08	0.044		
Reading 3	10.0					14:28	0.005	14:49	0.019	14:19	0.000	14:11	0.043		
Reading 4	10.0					16:53	0.001	16:56	0.022	16:16	0.000	16:08	0.027		
Reading 5	10.0							19:31	0.041						

		week of 6/12/2005													
	Limit	6/12/2005		6/13/2005		6/14/2005		6/15/2005		6/16/2005		6/17/2005		6/18/2005	
pDR-1000	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3
Reading 1	10.0	NR		10:28	0.045	10:28	0.012	10:37	0.003	10:55	0.018	10:04	0.031	7:11	0.000
Reading 2	10.0			12:43	0.047	12:37	0.005	12:36	0.01	13:41	0.005	11:30	0.001	9:20	0.000
Reading 3	10.0			14:35	0.052	14:47	0.008	14:41	0.01	15:24	0.009	13:24	0.002	11:20	0.000
Reading 4	10.0			16:44	0.039	16:45	0.024	16:36	0.014	17:48	0.007	15:32	0.003	13:38	0.000
Reading 5	10.0														

		week of 6/19/2005													
	Limit	6/19/2005		6/20/2005		6/21/2005		6/22/2005		6/23/2005		6/24/2005		6/25/2005	
pDR-1000	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3
Reading 1	10.0	NR		9:15	0.265	9:58	0.069	9:40	0.01	9:36	0.005	9:50	0.000	NR	
Reading 2	10.0			11:21	0.004	11:53	0.005	11:38	0.038	11:08	0.000	11:30	0.053		
Reading 3	10.0			13:43	0.006	14:17	0.044	13:14	0.004	13:12	0.004	13:45	0.048		
Reading 4	10.0			15:30	0.001	15:49	0.011	15:27	0.016	15:17	0.010	15:35	0.007		
Reading 5	10.0														

		week of 6/26/2005													
	Limit	6/26/2005		6/27/2005		6/28/2005		6/29/2005		6/30/2005		7/1/2005		7/2/2005	
pDR-1000	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3	Time	mg/m3
Reading 1	10.0	NR		10:04	0.002	9:22	0.008	9:27	0.085	10:06	0.018	9:52	0.003	NR	
Reading 2	10.0			12:38	0.002	11:28	0.024	11:30	0.000	12:43	0.000	11:25	0.035		
Reading 3	10.0			14:41	0.000	13:41	0.000	13:36	0.000	14:17	0.002	13:17	0.018		
Reading 4	10.0			15:38	0.012	15:04	0.000	15:49	0.002	15:38	0.000	15:23	0.044		
Reading 5	10.0														

Indiana Harbor and Canal Confined Disposal Facility
Obstructions Removal
Contract No. W912P6-04-C-0006

Particulates

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	ug/m3 Limit	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	24000	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	27000	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	30000	0.029	0.036
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	27000	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5500	0.005	0.005	970.3	6000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180		923.5	1600	0.002	0.002	1014.0	1800	0.002	0.002	1032.8	2600	0.003	0.002	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL	1.0			0.225	0.225			0.176	0.200			0.223	0.208			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

BOLD values represent exceedance of 5-day average limit

Parameter		Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.023	994.9	28000	0.028	0.025	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15		990.7	7500	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.005	994.9	4900	0.005	0.005	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.026	994.9	35000	0.035	0.028	1050.6	4500	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024	994.9	22000	0.022	0.023	1050.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.028	1018.9	8000	0.008	0.023	994.9	23000	0.023	0.022	1050.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118		990.7	5600	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total	1.0			0.173	0.117			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

BOLD values represent exceedance of 5-day average limit

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter		Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ppb		Sample	pg	ppb	
		Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day
	Limit	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.039	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

BOLD values represent exceedance of 5-day average limit

Parameter		Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ug/m3		Sample	pg	ppb		Sample	pg	ppb	
		Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day	Volume	Raw	Calc.	5-Day
	Limit	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average	(liters)	Data	Data	Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

BOLD values represent exceedance of 5-day average limit

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206

BOLD values represent exceedance of 5-day average limit.

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	2.498	994.9	620	0.623	2.351	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.379	994.9	ND	0.251	0.380	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.375	994.9	ND	0.251	0.377	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.783	994.9	1200	1.206	1.733	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	3.228	994.9	3400	3.417	3.465	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	9.271	994.9	10000	10.051	10.564	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.690
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8800	8.637	9.572	994.9	8300	8.343	9.825	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.769
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.221	994.9	1000	1.005	1.235	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.270

BOLD values represent exceedance of 5-day average limit.

Parameter		Week of 06/20/05																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.580
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.786
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	23.125	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	**34.581**
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

BOLD values represent exceedance of 5-day average limit.

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 06/27/05																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	0.520	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	32.248	**36.110**	952.3	53000	55.655	**43.248**	994.8	59000	59.308	**47.182**	961.1	15000	15.607	**41.264**	983.2	14000	14.239	**35.411**	984.2	17000	17.273	**32.416**	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

BOLD values represent exceedance of 5-day average limit.

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	ug/m3	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.027	0.027	0.045	0.012	0.019	0.099	0.026	0.022	0.081	0.021	0.022	0.036	0.010	0.019	0.033	0.009	0.016	0.091	0.024	0.018
Toluene	9065.0	0.820	0.189	0.189	0.420	0.097	0.143	0.770	0.177	0.154	0.710	0.164	0.157	0.380	0.088	0.143	0.170	0.039	0.113	0.430	0.099	0.113
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

BOLD values represnet exceedance of 5-day average limit.

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.490	0.153	0.079	0.092	0.029	0.068	0.250	0.078	0.068	0.480	0.150	0.075	0.160	0.050	0.100	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.058	0.024	0.021	0.006	0.021	0.085	0.023	0.021	0.100	0.027	0.024	0.042	0.011	0.027	0.065	0.017	0.017	0.120	0.032	0.022
Toluene	9065.0	3.000	0.691	0.216	0.170	0.039	0.191	0.460	0.106	0.191	0.710	0.164	0.195	0.250	0.058	0.220	0.430	0.099	0.093	0.900	0.207	0.127
Xylene	62510.0	0.870	0.200	0.080	0.082	0.019	0.070	0.302	0.070	0.070	0.370	0.085	0.078	0.139	0.032	0.091	0.271	0.062	0.054	0.570	0.131	0.076

BOLD values represnet exceedance of 5-day average limit.

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.450	0.141	0.125	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.032	0.024	0.096	0.025	0.024	0.094	0.025	0.024	0.055	0.015	0.026	0.094	0.025	0.026	0.120	0.032	0.024	0.140	0.037	0.027
Toluene	9065.0	0.920	0.212	0.148	0.660	0.152	0.146	0.640	0.147	0.146	0.430	0.099	0.164	0.640	0.147	0.164	1.100	0.253	0.160	1.300	0.299	0.189
Xylene	62510.0	0.460	0.106	0.083	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

BOLD values represnet exceedance of 5-day average limit.

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.240	0.075	0.156	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.011	0.024	0.096	0.025	0.026	0.110	0.029	0.026	0.047	0.012	0.027	0.045	0.012	0.023	0.066	0.018	0.019	0.027	0.007	0.016
Toluene	9065.0	0.310	0.071	0.174	0.660	0.152	0.185	0.870	0.200	0.185	0.310	0.071	0.195	0.310	0.071	0.159	0.490	0.113	0.122	0.260	0.060	0.103
Xylene	62510.0	0.188	0.043	0.087	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

BOLD values represnet exceedance of 5-day average limit.

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: In Harbor Obstruction Removal

Project No.: 030344

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
5-10-05	TISCH TE-5040 SN-0434	Ben [illegible] / Larry Ehrers	.9994		Sunny, 80° Windy SEE TISCH Environmental PLUF Calibration
6-6-05	PDR	Nick Mahaliks	ZERO CALIBRATION	"CAL OK"	Sunny, 85°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	East Chicago	Date:	10-May-05
Sampler:	TE-1000	Tech:	Ben Letany

CONDITIONS

Sampler Elevation (feet):	563		
Sea Level Pressure (in Hg):	30.05	Corrected Pressure (mm Hg):	749
Temperature (deg F):	81	Temperature (deg K):	300
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	756
Seasonal Temp. (deg F):	70	Seasonal Temp. (deg K):	294

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.68477
Model:	TE-5040	Qstd Intercept:	0.03657
Serial#:	434	Date Certified:	3/8/2005

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	5.85	0.271	70.0	8.27	Slope =	29.1925
2	5.10	0.253	60.0	7.66	Intercept =	0.3052
3	4.25	0.231	50.0	6.99	Corr coeff =	0.9994
4	3.35	0.204	40.0	6.26		
5	2.45	0.174	30.0	5.42	# of Observations	5

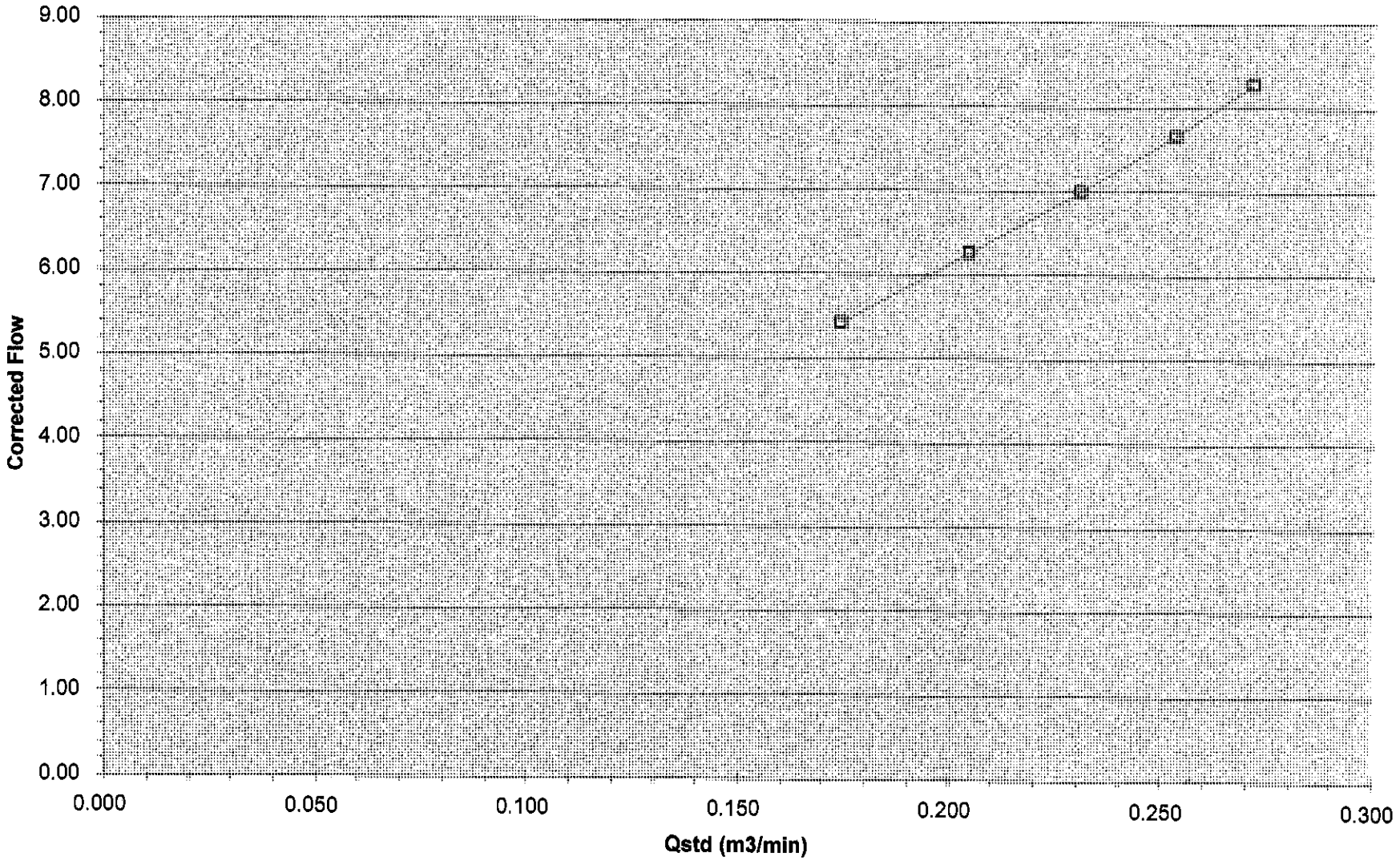
Calculations

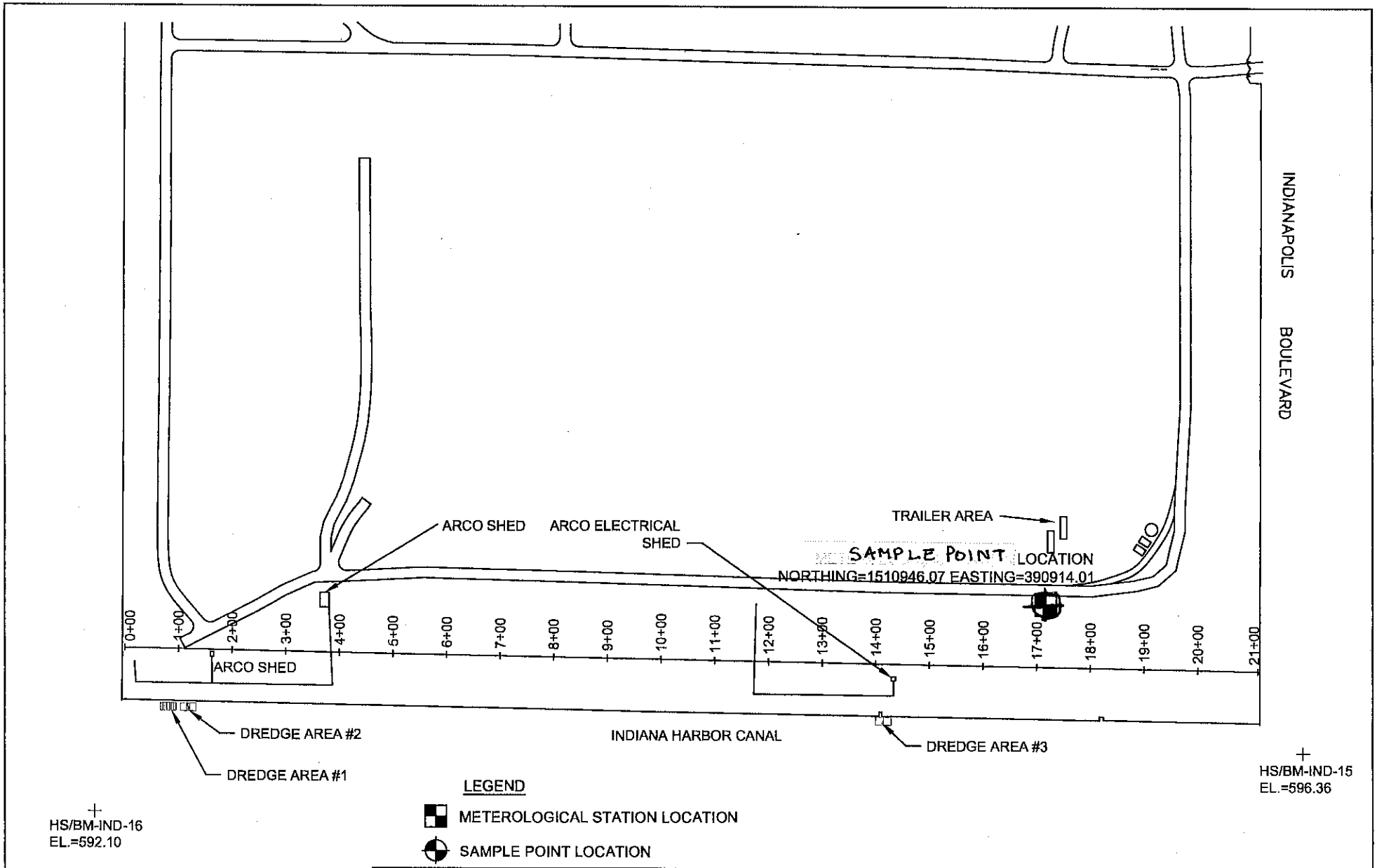
Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

CALIBRATION





REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 060605

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 060605	0

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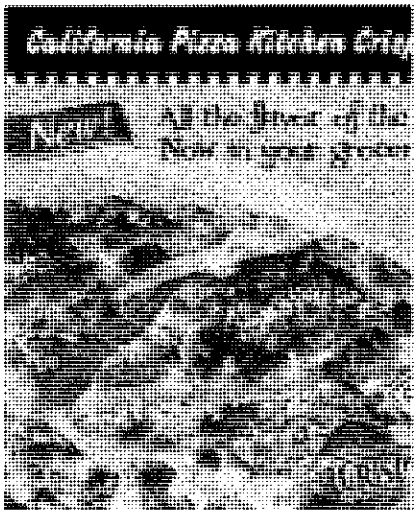
Home > Local Forecast > **Past Weather for East Chicago, IN**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear **68°F**	**68°F**	63°F	83%	Unlimited	29.86	Variable 7mph
Sunrise at 5:16 AM							
5:50 AM	Partly Cloudy **66°F**	**66°F**	61°F	83%	Unlimited	29.87 ↑	Variable 7mph
6:50 AM	Partly Cloudy **70°F**	**70°F**	64°F	83%	Unlimited	29.89 ↑	Variable 7mph
7:50 AM	Sunny **73°F**	**73°F**	64°F	73%	Unlimited	29.89 →	From W 7mph
8:50 AM	Sunny **75°F**	**76°F**	63°F	65%	Unlimited	29.84 ↓	From W 7mph
9:50 AM	Sunny **81°F**	**82°F**	64°F	58%	Unlimited	29.89 ↑	From WSW 14mph
10:49 AM	Partly Cloudy **82°F**	**83°F**	61°F	48%	Unlimited	29.88 ↓	From WSW 14mph
11:46 AM	Mostly Cloudy **84°F**	**84°F**	59°F	42%	Unlimited	29.89 ↑	From W 14mph
12:50 PM	Mostly Cloudy **86°F**	**87°F**	61°F	43%	Unlimited	29.88 ↓	From W 14mph
1:45 PM	Mostly Cloudy **88°F**	**88°F**	61°F	40%	Unlimited	29.87 ↓	From WSW 14mph
2:46 PM	Mostly Cloudy **91°F**	**92°F**	59°F	34%	Unlimited	29.85 ↓	From WSW 14mph
3:50 PM	Mostly Cloudy	**91°F**	55°F	29%	Unlimited	29.84 ↓	From W 17mph



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- Spring lawn care tips
- Indoor humidity health impact
- Airport conditions & flight delay
- Best times & places to exercise

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		91°F						
4:50 PM		Mostly Cloudy 91°F	91°F	54°F	28%	Unlimited	29.83 ↓	From W 12mph
5:50 PM		Mostly Cloudy 91°F	91°F	54°F	28%	Unlimited	29.82 ↓	From W 9mph
6:50 PM		Mostly Cloudy 91°F	91°F	57°F	31%	Unlimited	29.82 →	From W 8mph
7:50 PM		Partly Cloudy 82°F	83°F	59°F	45%	Unlimited	29.82 →	From W 6mph
Sunset at 8:21 PM								
8:50 PM		Partly Cloudy 73°F	73°F	63°F	69%	Unlimited	29.83 ↑	From SW 9mph
9:50 PM		Partly Cloudy 73°F	73°F	63°F	69%	Unlimited	29.85 ↑	From SW 9mph

Back to previous page

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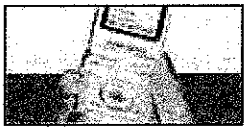

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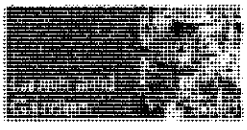
Spring Lawn Care

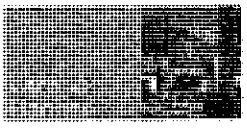


Tips to gro
yard in spr

Driving Weather

Check curr
conditions

Summer Adventure



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SAMPLING DATA SHEET

Site: IN HARBOR
PN 030244
Date: 06/06/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~	Air Volume, liters
TO-13	Semi-Vol	060605				07:00	06:00	23HR	923.5
TO-15	Vol	060605				07:00	06:00	23HR	6
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by: [illegible]

Activities performed on site: DREDGING
Weather conditions: SUNNY, HOT, HUMID
Analytical lab: STL
COC Number: EQ 13102, 12892

IHCDF ORAM Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 2
Start time and date: 09:38:54 06-Jun
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.010 mg/m³
Time at maximum: 09:39:11 Jun 06
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:38:54 Jun 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Jun	09:43:54	0.001

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13102**

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Paul Letang / EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: To-13/8270	TESTS: To-13/1668
SmiVol 060605	6605	24hr	Filter	40.15 L/hour	1	X	X
				@25 hours			
				⇒ 923.5 Liters			

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Bailey	6-7-05	0855	Mike McAlester	6-7-05	0855
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements	Turn Around Time (**EXACT DUE DATE**)	Report To	Chain of Custody Seal Numbers
	6/15/05	Jackie Dean/EQM	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ-** 12892

Project No	Project Name	Samplers/Affiliation: (Print Name and Sign)	Lab P.O. No
030244	Indiana Harbor Obstruction Removal	Ben Lekang Ben J. Fitzer EQM	9137

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: EPA TO-15											
Voc 060605	6-6-05	24hr.	Sums Canister	6 liter	1	X											
				Beg Pressure -30													
				End Pressure -17													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To
B. Fitzer	6-7-05	0855	Mike McRoberts	6-7-05	0855	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements	Turn Around Time (**EXACT DUE DATE**)	Report To	Chain of Custody Seal Numbers
	6/15/05	Jackie Dunn / EQM	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 060605

GC/MS Volatiles

Lot-Sample #...: G5F080428-001
Date Sampled...: 06/06/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HC77H1AC
Date Received..: 06/08/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.10	0.020	ppb(v/v)
Toluene	0.82	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.28	0.040	ppb(v/v)
o-Xylene	0.094	0.020	ppb(v/v)
Benzene	0.36	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060605

GC/MS Semivolatiles

Lot-Sample #...: G5F080428-005 Work Order #...: HDDX21AC Matrix.....: AIR
Date Sampled...: 06/06/05 Date Received..: 06/10/05
Prep Date.....: 06/10/05 Analysis Date..: 06/15/05
Prep Batch #...: 5164464
Dilution Factor: 1 Method.....: SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**8300**	**500**	**ng**
Acenaphthylene	**720**	**500**	**ng**
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2800**	**500**	**ng**
Fluorene	**11000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**29000**	**1000**	**ng**
Phenanthrene	**20000**	**500**	**ng**
Pyrene	**1800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	72	(25 - 150)
Acenaphthylene-d8	95	(25 - 150)
Acenaphthene-d10	85	(25 - 150)
Phenanthrene-d10	85	(25 - 150)
Benzo(a)pyrene-d12	70	(25 - 150)
Fluoranthene-d10	74	(25 - 150)
Pyrene-d10	73	(25 - 150)
Benzo(a)anthracene-d12	126	(25 - 150)
Chrysene-d12	66	(25 - 150)
Benzo(b)fluoranthene-d12	128	(25 - 150)
Benzo(k)fluoranthene-d12	66	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	99	(25 - 150)
Dibenz(ah)anthracene-d14	127	(25 - 150)
Benzo(ghi)perylene-d12	72	(25 - 150)
Fluorene d-10	73	(25 - 150)
13C6-Fluorene	50	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060605

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-005
Date Sampled...: 06/06/05
Prep Date.....: 06/10/05
Prep Batch #...: 5164463
Dilution Factor: 1

Work Order #...: HDDX21AA
Date Received..: 06/10/05
Analysis Date..: 06/16/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**48000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**9100**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**55000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**38000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**46000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**2900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1600**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	65	(25 - 150)
13C12-PCB 28	92	(25 - 150)
13C12-PCB 77	103	(25 - 150)
13C12-PCB 81	104	(25 - 150)
13C12-PCB 118	94	(25 - 150)
13C12-PCB 114	90	(25 - 150)
13C12-PCB 105	91	(25 - 150)
13C12-PCB 126	97	(25 - 150)
13C12-PCB 167	111	(25 - 150)
13C12-PCB 156	113	(25 - 150)
13C12-PCB 169	106	(25 - 150)
13C12-PCB 180	99	(25 - 150)
13C12-PCB 170	93	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	51	(25 - 150)
13C12-PCB 19	57	(25 - 150)
13C12-PCB 54	127	(25 - 150)
13C12-PCB 111	119	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060605

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-005 Work Order #...: HDDX21AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

AIR MONITORING EQUIPMENT MALFUNCTION LOG

Site Name: INDIANA Harbor Obstruction Removal

DATE/TIME	MALFUNCTION REPORTED BY	INSTRUMENT (Mfg./Model)	EQUIPMENT MALFUNCTION	CORRECTIVE ACTIONS PERFORMED
6/6/05	[illegible]	PDR	Dead Battery	Replaced 9V Battery

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
1	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
2	▪ Method Blank

Comments/Nonconformance

1 PAH internal standard Benzo(b)fluoranthene (noted on report as surrogate) recovered (152) above limits (25-150), all other %R within limits
2 PCB8 detected at 1000 pg in the method blank, sample results >10x blank concentration, no qualifications
3 PCB77 is reported with elevated reporting limit
4 PCB8 and PCB105 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for 06/06/05

Reviewer **Date of Review** 6/16/05

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/6/05	

Jackie Dow
Reviewer

6/22/05
Date of Review

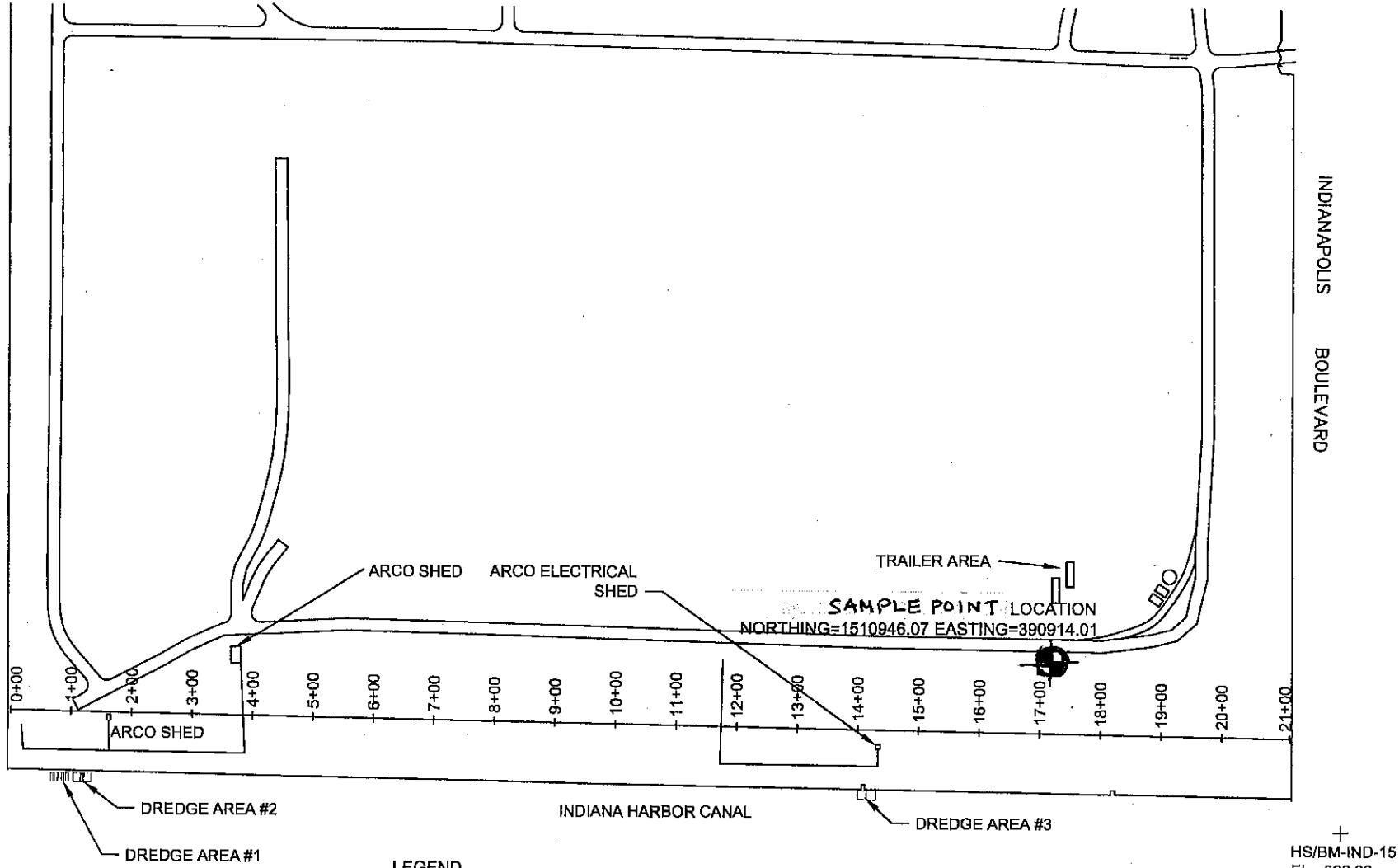
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: IN Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-2-05 0723	PDR	[illegible]	zero-Calibration	"Cal ok"	Sunny, Hot, Humid Wind SW

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 060705

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 060705	0

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy **64°F**	**64°F**	61°F	88%	Unlimited	29.86	Variable 7mph
Sunrise at 5:16 AM							
5:50 AM	Mostly Cloudy **68°F**	**68°F**	63°F	83%	Unlimited	29.87 ↑	Variable 7mph
6:50 AM	Mostly Cloudy **70°F**	**70°F**	63°F	78%	Unlimited	29.87 →	Variable 7mph
7:50 AM	Mostly Cloudy **73°F**	**73°F**	64°F	73%	Unlimited	29.89 ↑	Variable 7mph
8:45 AM	Mostly Cloudy **79°F**	**81°F**	66°F	65%	Unlimited	29.90 ↑	Variable 7mph
9:50 AM	Mostly Cloudy **82°F**	**86°F**	70°F	66%	Unlimited	29.88 ↓	Variable 7mph
10:45 AM	Partly Cloudy **86°F**	**90°F**	70°F	58%	Unlimited	29.88 →	Variable 7mph
11:45 AM	Partly Cloudy **88°F**	**94°F**	72°F	58%	Unlimited	29.86 ↓	Variable 7mph
1:48 PM	Mostly Cloudy **91°F**	**95°F**	66°F	43%	Unlimited	29.84 ↓	From S 12mph
2:50 PM	Thunder **84°F**	**87°F**	68°F	58%	Unlimited	29.84 →	From SSE 12mph
3:50 PM	Mostly Cloudy **81°F**	**83°F**	66°F	61%	Unlimited	29.82 ↓	From SE 12mph
4:50	Mostly						From SE

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PM	Cloudy 86°F	88°F	64°F	48%	Unlimited	29.79 ↓	12mph
5:50 PM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.79 →	From SE 12mph
6:50 PM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.79 →	From SSW 9mph
7:50 PM	Mostly Cloudy 82°F	86°F	70°F	66%	Unlimited	29.79 →	From SSE 6mph
Sunset at 8:22 PM							
9:50 PM	Mostly Cloudy 81°F	82°F	64°F	58%	Unlimited	29.80 ↑	From S 12mph

Back to previous page

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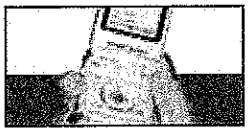

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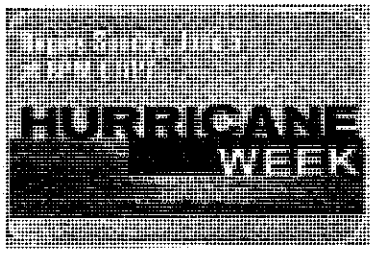

On-Air Schedule (ET)

Now | Day Planner

12 PM | Weather Center

4 PM | Afternoon Outlook

Watch Hurricane Week Starting Sunday, June 5!

Tune to The Weather Channel Radio in your area!

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Site:	INDIANA HARBOR
PN	030244
Date:	06/07/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min.	Air Volume, liters
TO-13 *	Semi-Vol/060705					06:20	06:15	24hr	1014.00
TO-15	Voc-060705					06:20	06:20	24hr	6.00
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]

Calculations by: [illegible]

Checked by: [illegible]

Activities performed on site: DREDGING / Diving

Weather conditions: Hot, Humid, Sunny

Analytical lab: STL / COC Number: ED 13103, ED 13104

* Glass Cartridge Containing PUF Filter was lodged in Sampler Holder. Had to Remove PUF and Put into TISCH Calibration Glass Cartridge For Shipment. When PUF was Removed, had to break glass out of Holder. STL was informed, as well as Arthur Buonzanti's of The potential of Contamination

IHCDF ORAM Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 10:31:37 07-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.012 mg/m³
Time at maximum: 10:31:44 Jun 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:31:37 Jun 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jun	10:36:37	0.001

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 12:47:37 07-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.027 mg/m³
Time at maximum: 12:51:00 Jun 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:47:37 Jun 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jun	12:52:37	0.003

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 14:23:56 07-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.020 mg/m³
Time at maximum: 14:25:19 Jun 07
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 14:28:56 Jun 07
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jun	14:28:56	0.005

pDR-1000 S/N: 00000
Tag Number: 05
Number of logged points: 1
Start time and date: 16:48:05 07-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.009 mg/m³
Time at maximum: 16:52:13 Jun 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 16:48:05 Jun 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jun	16:53:05	0.001

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 15103**

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotsmy Ben J. Lotsmy / EQM

Lab P.O. No. 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TOB/8270	TOB/1668										
Semi-Vol 060705	6-7-05	2Hr.	Filter	1,014.00 liters	2	X	X										

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-8-05	0835	[signature]	6-8-05	0835
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/16/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13104**

Project No	Project Name
030244	INDIANA Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* [illegible] / Ecom

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: EPA TO-15
Vac 060705	6-7-05	24hr.	Suma Canister	6 liter	1	X
				Beg. Pressure -30		
				End Pressure -8		

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	6-8-05	0835	M McRoberts.	6-8-05	0835
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements	Turn Around Time (**EXACT DUE DATE**)	Report To	Chain of Custody Seal Numbers
	6/16/05	JACKIE DOAN	

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 060705

GC/MS Volatiles

Lot-Sample #...: G5F080428-003
Date Sampled...: 06/07/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDANH1AC
Date Received..: 06/09/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.045	0.020	ppb(v/v)
Toluene	0.42	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.12	0.040	ppb(v/v)
o-Xylene	0.047	0.020	ppb(v/v)
Benzene	0.16	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060705

GC/MS Semivolatiles

Lot-Sample #...:	G5F080428-002	**Work Order #...:**	HDANE1AC	**Matrix.....:**	AIR
Date Sampled...:	06/07/05	**Date Received..:**	06/09/05		
Prep Date.....:	06/10/05	**Analysis Date..:**	06/14/05		
Prep Batch #...:	5164464				
Dilution Factor:	1	**Method.....:**	SW846 8270C SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**3400**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2500**	**500**	**ng**
Fluorene	**5300**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**15000**	**1000**	**ng**
Phenanthrene	**13000**	**500**	**ng**
Pyrene	**1300**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	79	(25 - 150)
Acenaphthylene-d8	84	(25 - 150)
Acenaphthene-d10	89	(25 - 150)
Phenanthrene-d10	89	(25 - 150)
Benzo(a)pyrene-d12	75	(25 - 150)
Fluoranthene-d10	79	(25 - 150)
Pyrene-d10	78	(25 - 150)
Benzo(a)anthracene-d12	133	(25 - 150)
Chrysene-d12	68	(25 - 150)
Benzo(b)fluoranthene-d12	152 *	(25 - 150)
Benzo(k)fluoranthene-d12	69	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	89	(25 - 150)
Dibenz(ah)anthracene-d14	112	(25 - 150)
Benzo(ghi)perylene-d12	62	(25 - 150)
Fluorene d-10	78	(25 - 150)
13C6-Fluorene	32	(25 - 150)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060705

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-002 Work Order #...: HDANE1AA Matrix.....: AIR
Date Sampled...: 06/07/05 Date Received..: 06/09/05
Prep Date.....: 06/10/05 Analysis Date..: 06/15/05
Prep Batch #...: 5164463
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**50000 B,C**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**7600**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**36000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**35000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**34000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND G	1100	pg	EPA-14 1668
PCB 105 (BZ)	**2900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5500**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**3100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	100	(25 - 150)
13C12-PCB 28	112	(25 - 150)
13C12-PCB 77	117	(25 - 150)
13C12-PCB 81	120	(25 - 150)
13C12-PCB 118	110	(25 - 150)
13C12-PCB 114	117	(25 - 150)
13C12-PCB 105	121	(25 - 150)
13C12-PCB 126	148	(25 - 150)
13C12-PCB 167	115	(25 - 150)
13C12-PCB 156	128	(25 - 150)
13C12-PCB 169	125	(25 - 150)
13C12-PCB 180	113	(25 - 150)
13C12-PCB 170	117	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	32	(25 - 150)
13C12-PCB 19	48	(25 - 150)
13C12-PCB 54	111	(25 - 150)
13C12-PCB 111	104	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060705

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-002 Work Order #...: HDANE1AA Matrix.....: AIR

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

C Co-eluting isomer.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY	STATE	ZIP
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT
CLAMSHELL BUCKET BRINGING SOIL OUT OF RIVER AND DUMPING INTO CONTAINMENT AREA

HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER
10'	Start 4' End SAME
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER
Start 45' End SAME	Start WSW End SAME

DESCRIBE EMISSIONS
Start NONE End SAME

EMISSION COLOR	IF WATER DROPLET PLUME
Start End	Attached ☐ Detached ☐

POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED
Start ABOVE CLAM & ABOVE SOIL End SAME

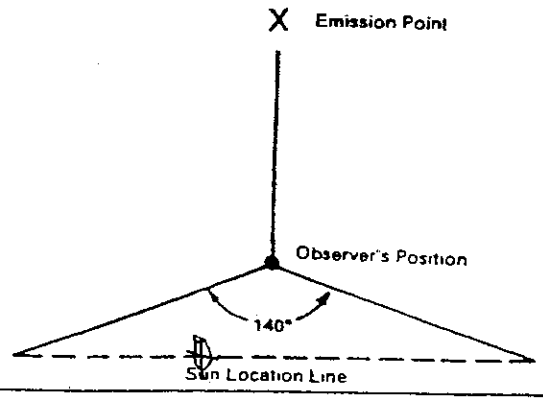
DESCRIBE PLUME BACKGROUND
Start SKY End SAME

BACKGROUND COLOR	SKY CONDITIONS
Start BLUE + WHITE End SAME	Start PT SUNNY End SAME
WIND SPEED	WIND DIRECTION
Start 10 End SAME	Start SW End SAME
AMBIENT TEMP	WET BULB TEMP / RH, percent
Start 75 End SAME	60

SOURCE LAYOUT SKETCH

Stack with Plume
Sun
Wind

Draw North Arrow



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
6/8/05	0830	0844

MIN \ SEC	0	15	30	45	COMMENTS
1	0	0	0	0	BUCKET 1
2	0	0	0	0	
3					
4					
5	0	0	0	0	BUCKET 2
6	0	0	0	0	
7					
8					
9	0	0	0	0	BUCKET 3
10	0	0	0	0	
11					
12					
13	0	0	0	0	BUCKET 4
14	0	0	0	0	
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)
STUART WILKINSON

OBSERVER'S SIGNATURE
Stuart Wilkinson

DATE 6/8/05

ORGANIZATION
E.Q.M.I.

CERTIFIED BY
E.T.A.

DATE 4/6/05

CONTINUED ON VEO FORM NUMBER

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
1	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
2	▪ Method Blank

Comments/Nonconformance

1 PAH internal standard Benzo(b)fluoranthene (noted on report as surrogate) recovered (152) above limits (25-150), all other %R within limits
2 PCB8 detected at 1000 pg in the method blank, sample results >10x blank concentration, no qualifications
3 PCB77 is reported with elevated reporting limit
4 PCB8 and PCB105 exhibited co-eluting isomers, results are qualified as estimated

Glass PUF Cartridge holder was broken during removal from sample stand, material was transferred to another holder and shipped to the laboratory. All PCB and PAH results are qualified as estimated due to potential sample compromise.

PAH and PCB data for _06/07/05_

Jackie L — 6/16/05

Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/7/05	

Jackie Sam — 6/22/05

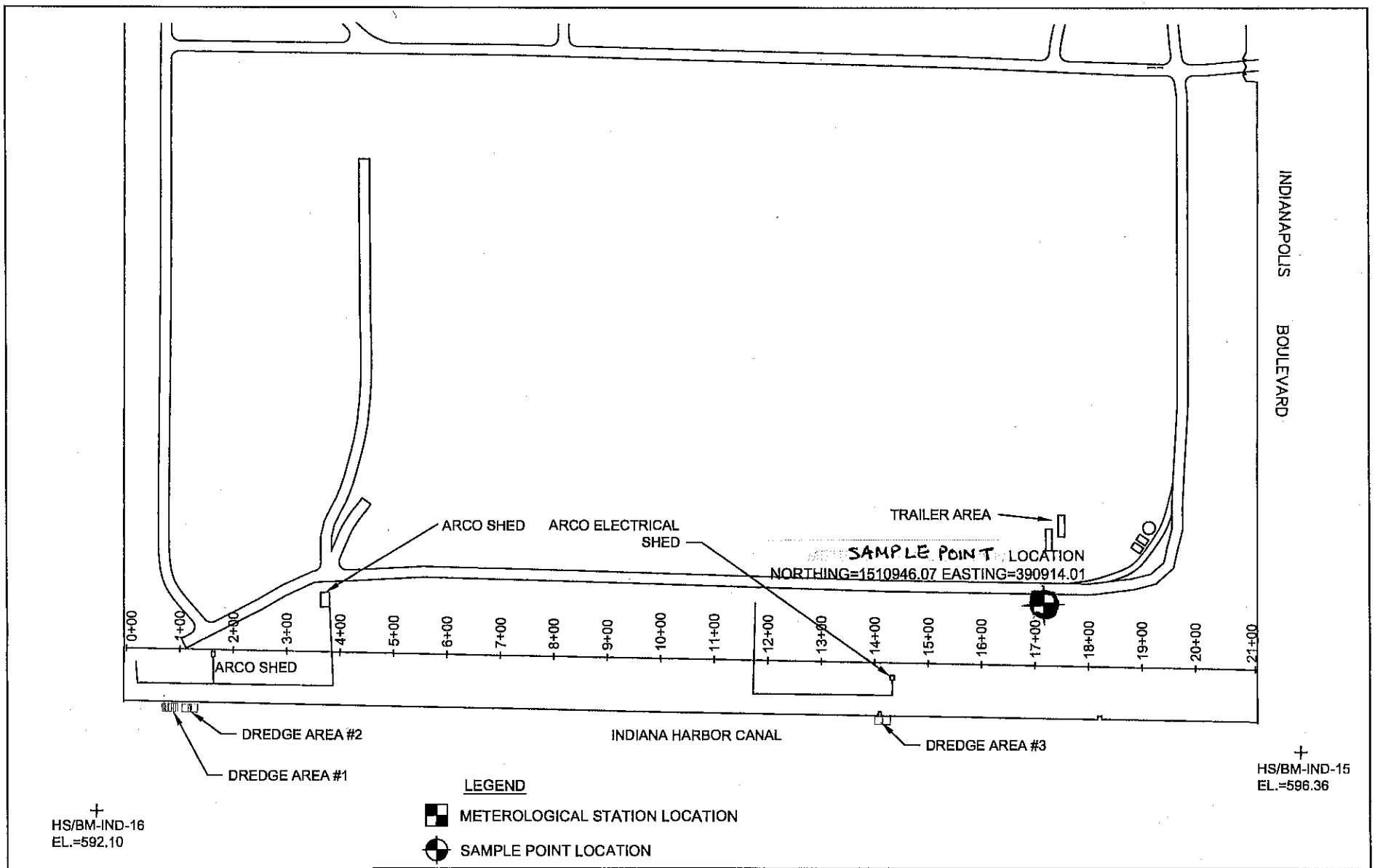
Reviewer — **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-8-05	PDR	Bufkley	Zero Calibration	"Cal OK"	Sunny, Hot, Humid, SW wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 060805

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 060805	0

6-8-05

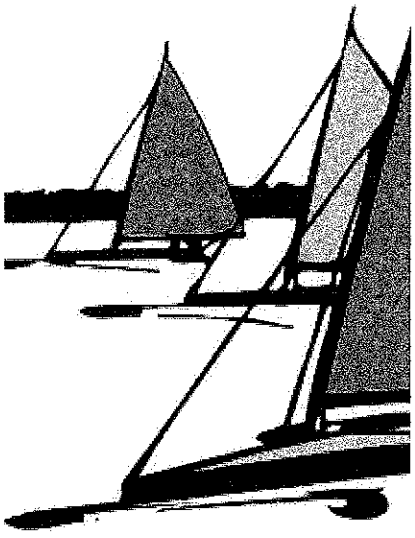
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:49 AM	Partly Cloudy **75°F**	**77°F**	66°F	73%	Unlimited	29.82	From SSW 9mph
	Sunrise at 5:16 AM						
5:49 AM	Partly Cloudy **73°F**	**73°F**	66°F	78%	Unlimited	29.82 →	From S 9mph
6:47 AM	Partly Cloudy **75°F**	**77°F**	68°F	78%	Unlimited	29.82 →	From S 9mph
7:50 AM	Partly Cloudy **75°F**	**77°F**	66°F	73%	Unlimited	29.84 ↑	Variable 6mph
8:50 AM	Partly Cloudy **81°F**	**84°F**	70°F	70%	Unlimited	29.83 ↓	From S 12mph
9:58 AM	Partly Cloudy **82°F**	**86°F**	70°F	66%	Unlimited	29.84 ↑	From S 12mph
10:50 AM	Partly Cloudy **84°F**	**88°F**	70°F	62%	Unlimited	29.84 →	From S 14mph
11:50 AM	Partly Cloudy **88°F**	**94°F**	72°F	58%	Unlimited	29.82 ↓	From S 14mph
12:50 PM	Partly Cloudy **91°F**	**97°F**	70°F	49%	Unlimited	29.82 →	From SSW 16mph
2:50 PM	Mostly Cloudy **91°F**	**94°F**	64°F	41%	Unlimited	29.81 ↓	From SSW 12mph
3:50 PM	Mostly Cloudy **91°F**	**95°F**	66°F	43%	Unlimited	29.79 ↓	From SSW 12mph
	Mostly						

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-W
Race. http://team.abnamro.com

Sailing under one flag TEAM ABN AMRO

Special Offers in East Chica

4:45 PM	Cloudy 86°F	89°F	68°F	55%	Unlimited	29.79 →	From S 12mph
5:51 PM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.79 →	From S 9mph
6:45 PM	Mostly Cloudy 82°F	86°F	68°F	62%	10.0 miles	29.78 ↓	From SSW 12mph
7:50 PM	Cloudy 79°F	81°F	66°F	65%	Unlimited	29.74 ↓	From S 12mph
Sunset at 8:22 PM							
8:50 PM	Cloudy 79°F	80°F	64°F	61%	Unlimited	29.73 ↓	From SSE 9mph
9:50 PM	Cloudy 77°F	78°F	64°F	65%	Unlimited	29.78 ↑	calm

Back to previous page

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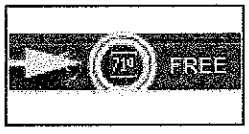

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Severe weather alerts flash as they occur
Put local temp next to the time on your PC!

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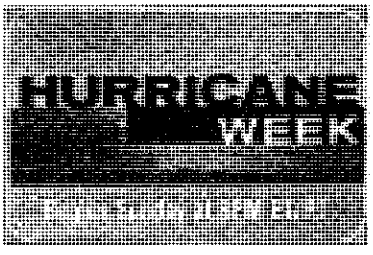

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

Watch Hurricane Week Starting Sunday, June 5!

Tune to The Weather Channel Radio in your area!

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This Week's Features

Spring Lawn Care

Tips to gro yard in spr

Driving Weather

Check curr conditions

Summer Adventure

Find perfec your sumn

Desktop Weather

FREE weat on your de

Health

Weather a

Site: Indiana Harbor
PN 030244
Date: 06/08/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC060805					06:30	06:20	24	6
TO-13	Semi-VOC060805					06:35	06:20	24	1,032.77 Liters
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by: [illegible]

Activities performed on site: DREDGING ; DIVING
Weather conditions:
Analytical lab:
COC Number: EQ-13105, EQ-13106

IHCDF Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 06
Number of logged points: 1
Start time and date: 09:58:33 08-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.146 mg/m³
Time at maximum: 09:58:37 Jun 08
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 10:03:33 Jun 08
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jun	10:03:33	0.024

pDR-1000 S/N: 00000
Tag Number: 07
Number of logged points: 1
Start time and date: 12:13:10 08-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.075 mg/m³
Time at maximum: 12:16:22 Jun 08
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 12:18:40 Jun 08
Overall Avg Conc: 0.022 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jun	12:18:10	0.028

pDR-1000 S/N: 00000
Tag Number: 08
Number of logged points: 4
Start time and date: 14:44:45 08-Jun
Elapsed time: 00:20:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.066 mg/m³
Time at maximum: 14:47:49 Jun 08
Max STEL Concentration: 0.011 mg/m³
Time at max STEL: 15:03:15 Jun 08
Overall Avg Conc: 0.010 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jun	14:49:45	0.019
2	8-Jun	14:54:45	0.012
3	8-Jun	14:59:45	0.01
4	8-Jun	15:04:45	0.01

pDR-1000 S/N: 00000

Tag Number: 09
Number of logged points: 1
Start time and date: 16:51:34 08-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.050 mg/m³
Time at maximum: 16:55:52 Jun 08
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 16:56:04 Jun 08
Overall Avg Conc: 0.020 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jun	16:56:34	0.022

pDR-1000 S/N: 00000
Tag Number: 10
Number of logged points: 1
Start time and date: 19:26:06 08-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.068 mg/m³
Time at maximum: 19:27:12 Jun 08
Max STEL Concentration: 0.014 mg/m³
Time at max STEL: 19:31:07 Jun 08
Overall Avg Conc: 0.040 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jun	19:31:06	0.041

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13105

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotamy / EQM, INC.

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15
Voc 060805	6-8-05	24hr	Summa Canister	6 liter	1	
				Beg. Pressure -30		
				End Pressure		

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-9-05	0839	[signature]	6-9-05	0839
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/17/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13106

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotamy

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Air-Vol 060805	6-8-05	24hr.	Filter	43.03 L/hr @ 24hr ⇒ 1,032.77 Liters	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lotamy	6-9-05	0838	Mike McLaughlin	6-9-05	0838
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pickup on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/17/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 060805

GC/MS Volatiles

Lot-Sample #...: G5F080428-006
Date Sampled...: 06/08/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDEXG1AC
Date Received..: 06/10/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.099	0.020	ppb(v/v)
Toluene	0.77	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.27	0.040	ppb(v/v)
o-Xylene	0.091	0.020	ppb(v/v)
Benzene	0.36	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060805

GC/MS Semivolatiles

Lot-Sample #...: G5F080428-004 **Work Order #...:** HDDXJ1AC **Matrix.....:** AIR
Date Sampled...: 06/08/05 **Date Received..:** 06/10/05
Prep Date.....: 06/10/05 **Analysis Date..:** 06/14/05
Prep Batch #...: 5164464
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**6600**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	**510**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2900**	**500**	**ng**
Fluorene	**8000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**28000**	**1000**	**ng**
Phenanthrene	**19000**	**500**	**ng**
Pyrene	**1800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	45	(25 - 150)
Acenaphthylene-d8	59	(25 - 150)
Acenaphthene-d10	50	(25 - 150)
Phenanthrene-d10	50	(25 - 150)
Benzo(a)pyrene-d12	43	(25 - 150)
Fluoranthene-d10	45	(25 - 150)
Pyrene-d10	44	(25 - 150)
Benzo(a)anthracene-d12	70	(25 - 150)
Chrysene-d12	38	(25 - 150)
Benzo(b)fluoranthene-d12	73	(25 - 150)
Benzo(k)fluoranthene-d12	40	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	52	(25 - 150)
Dibenz(ah)anthracene-d14	65	(25 - 150)
Benzo(ghi)perylene-d12	37	(25 - 150)
Fluorene d-10	49	(25 - 150)
13C6-Fluorene	26	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060805

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-004 Work Order #...: HDDXJ1AA Matrix.....: AIR
Date Sampled...: 06/08/05 Date Received..: 06/10/05
Prep Date.....: 06/10/05 Analysis Date..: 06/16/05
Prep Batch #...: 5164463
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**52000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**9900**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**54000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**47000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**51000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND G	1200	pg	EPA-14 1668
PCB 105 (BZ)	**2500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2600**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	61	(25 - 150)
13C12-PCB 28	69	(25 - 150)
13C12-PCB 77	60	(25 - 150)
13C12-PCB 81	59	(25 - 150)
13C12-PCB 118	53	(25 - 150)
13C12-PCB 114	51	(25 - 150)
13C12-PCB 105	53	(25 - 150)
13C12-PCB 126	56	(25 - 150)
13C12-PCB 167	64	(25 - 150)
13C12-PCB 156	66	(25 - 150)
13C12-PCB 169	66	(25 - 150)
13C12-PCB 180	59	(25 - 150)
13C12-PCB 170	58	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	20 *	(25 - 150)
13C12-PCB 19	44	(25 - 150)
13C12-PCB 54	116	(25 - 150)
13C12-PCB 111	115	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 060805

Trace Level Organic Compounds

Lot-Sample #...: G5F080428-004 Work Order #...: HDDXJ1AA Matrix.....: AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
1	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
2	▪ Method Blank

Comments/Nonconformance

1 PAH internal standard Benzo(b)fluoranthene (noted on report as surrogate) recovered (152) above limits (25-150), all other %R within limits
2 PCB8 detected at 1000 pg in the method blank, sample results >10x blank concentration, no qualifications
3 PCB77 is reported with elevated reporting limit
4 PCB8 and PCB105 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for 06/08/05

Jackie Sv — 6/16/05

Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/8/05

Jackie Dow — 6/22/05

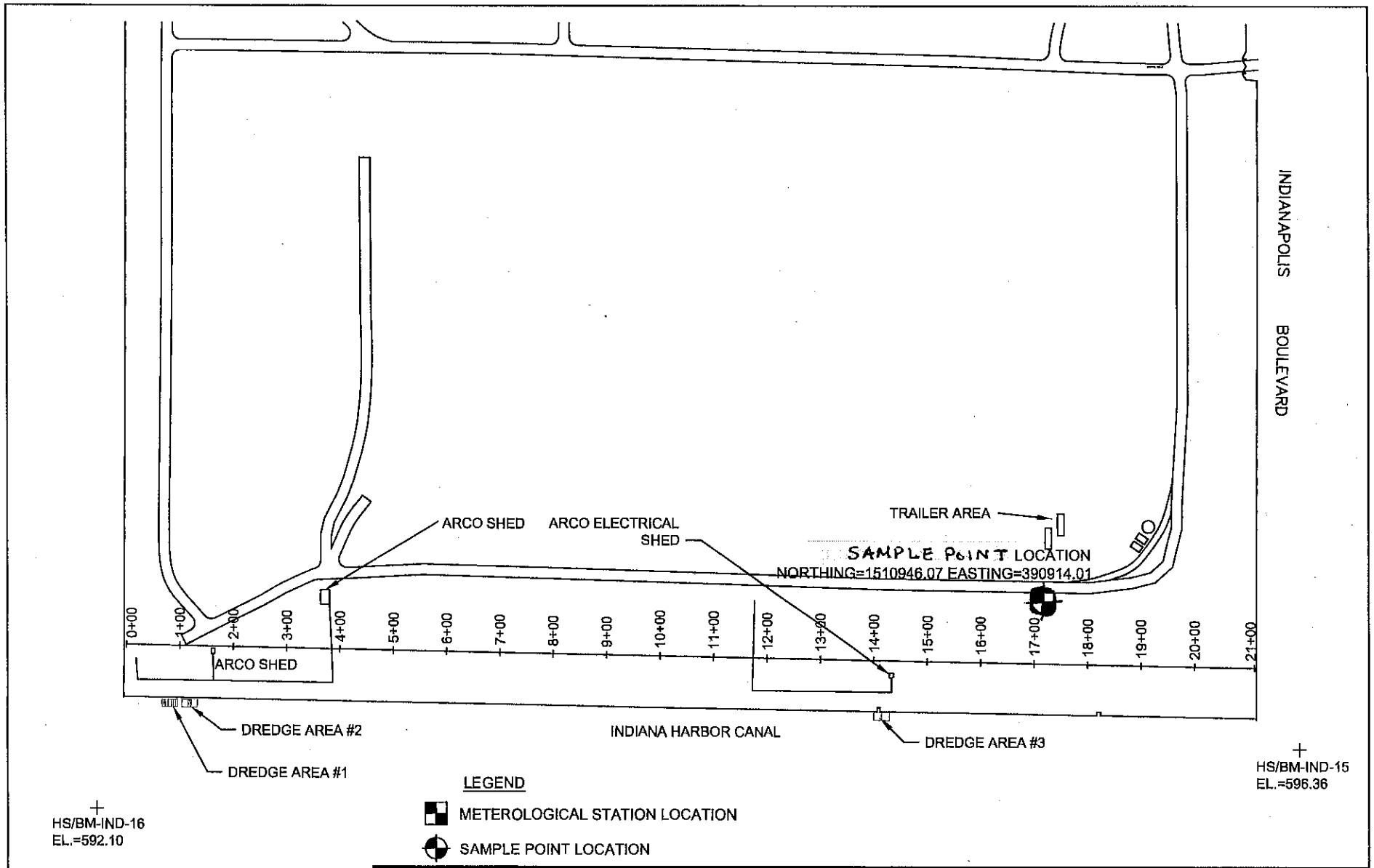
Reviewer — **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-9-05 0754	PDR	Berlekang	Zero Calibration	"Cal OK"	Overcast, Humid, Hot light SW wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 060905

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 060905	0

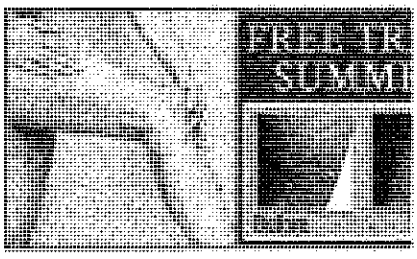
6-10-05

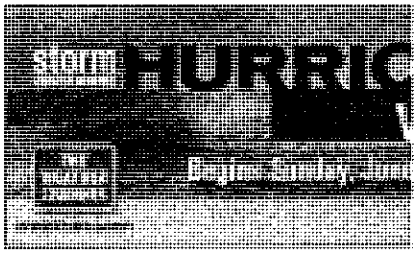
Arlene Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Cloudy 70°F	70°F	68°F	94%	Unlimited	29.84	Variable 6mph
Sunrise at 5:15 AM							
5:50 AM	Mostly Cloudy 70°F	70°F	66°F	88%	Unlimited	29.86 ↑	From WSW 8mph
6:50 AM	Mostly Cloudy 72°F	72°F	68°F	88%	Unlimited	29.87 ↑	From WSW 9mph
7:50 AM	Mostly Cloudy 73°F	73°F	68°F	83%	Unlimited	29.88 ↑	Variable 7mph
8:50 AM	Mostly Cloudy 75°F	77°F	68°F	78%	Unlimited	29.88 →	Variable 7mph
9:50 AM	Mostly Cloudy 75°F	77°F	68°F	78%	Unlimited	29.88 →	Variable 7mph
10:50 AM	Mostly Cloudy 75°F	77°F	68°F	78%	Unlimited	29.89 ↑	Variable 7mph
11:50 AM	Mostly Cloudy 79°F	82°F	70°F	74%	Unlimited	29.90 ↑	Variable 7mph
12:52 PM	Mostly Cloudy 79°F	82°F	70°F	74%	Unlimited	29.90 →	Variable 7mph
1:50 PM	Mostly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.89 ↓	Variable 7mph
3:45 PM	Mostly Cloudy 86°F	89°F	68°F	55%	Unlimited	29.86 ↓	Variable 6mph





Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Special Offers in East Chic

4:50 PM	Mostly Cloudy **88°F**	**92°F**	70°F	55%	Unlimited	29.85 ↓	Variable 7mph
5:50 PM	Mostly Cloudy **91°F**	**97°F**	70°F	49%	Unlimited	29.84 ↓	Variable 7mph
6:50 PM	Mostly Cloudy **91°F**	**98°F**	72°F	52%	10.0 miles	29.85 ↑	Variable 7mph
7:26 PM	Light Rain with Thunder **84°F**	**86°F**	64°F	51%	10.0 miles	29 86 ↑	From WSW 12mph
7:50 PM	Mostly Cloudy **81°F**	**83°F**	66°F	61%	Unlimited	29.86 →	From WNW 12mph
		Sunset at 8:23 PM					
8:50 PM	Mostly Cloudy **81°F**	**83°F**	66°F	61%	Unlimited	29.85 ↓	calm
9:50 PM	Mostly Cloudy **81°F**	**83°F**	68°F	65%	Unlimited	29 87 ↑	Variable 6mph

Avg. 79.6 Avg. 29.87

Back to previous page

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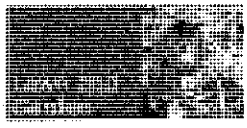
This Week's Features

Spring Lawn Care



Tips to gro
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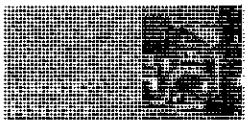
Driving Weather

Check curr
conditions

Summer Adventure



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Weather a

Site: Indiana Harbor
PN 030244
Date: 06 / 09 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR.	Air Volume, liters
TO-15	VOC060905					06:22	06:15	24	6
TO-13	SemiVol060905					06:31	06:21	24	970.3L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: Ben Fitz
Calculations by: Ben Fitz
Checked by: Jack Dent

Activities performed on site: BACKFILLING COFFER DAM, DEWATER DREDGE MATERIAL
Weather conditions: OVERCAST, HOT, HUMID, SW WIND
Analytical lab: STL
COC Number: EQ-13107, EQ-13108

IHCDF Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:14:56 09-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 10:14:56 Jun 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:14:56 Jun 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Jun	10:19:56	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 12:26:16 09-Jun
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 12:26:16 Jun 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:26:16 Jun 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Jun	12:31:16	0
2	9-Jun	12:36:16	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:14:35 09-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:14:35 Jun 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:14:35 Jun 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Jun	14:19:35	0

pDR-1000 S/N: 00000
Tag Number: 04

Number of logged points: 1
Start time and date: 16:11:03 09-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 16:11:03 Jun 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 16:11:03 Jun 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Jun	16:16:03	0

EQ 1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13108**

Project No: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Delany [signature] /EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: EPA-TO15											
VOC 060905	6-9-05	24hr.	Suma Canister	6 liter	1	X											

(In the header cells, the Date "6-9-05" and Time "24hr." are handwritten and struck through.)

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-10-05	0905	M. Roberts [signature]	6-10-05	0905

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/18/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13107**

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotemy / Ben Lotemy

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: To-13 / 8270	TESTS: To-13 / 1668
Semi-Vol 060905	6-9-05	24hr.	Filter	970.3L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lotemy	6-10-05	1005	M Nikolent	6-10-05	0905
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pickup on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/18/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment; Pink - Project Files; Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 060905

GC/MS Volatiles

Lot-Sample #...: G5F110218-005
Date Sampled...: 06/09/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDKT61AC
Date Received..: 06/14/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.081	0.024	ppb(v/v)
Toluene	0.71	0.024	ppb(v/v)
m-Xylene & p-Xylene	0.23	0.048	ppb(v/v)
o-Xylene	0.080	0.024	ppb(v/v)
Benzene	0.26	0.056	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 060905

GC/MS Semivolatiles

Lot-Sample #...: G5F110218-001 **Work Order #...:** HDF7W1AC **Matrix.....:** AIR
Date Sampled...: 06/09/05 **Date Received..:** 06/11/05
Prep Date.....: 06/14/05 **Analysis Date..:** 06/16/05
Prep Batch #...: 5166375 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**3600**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**3000**	**500**	**ng**
Fluorene	**5100**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**8600**	**1000**	**ng**
Phenanthrene	**17000**	**500**	**ng**
Pyrene	**1800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	79	(25 - 150)
Acenaphthylene-d8	91	(25 - 150)
Acenaphthene-d10	91	(25 - 150)
Phenanthrene-d10	97	(25 - 150)
Benzo(a)pyrene-d12	84	(25 - 150)
Fluoranthene-d10	81	(25 - 150)
Pyrene-d10	84	(25 - 150)
Benzo(a)anthracene-d12	89	(25 - 150)
Chrysene-d12	73	(25 - 150)
Benzo(b)fluoranthene-d12	85	(25 - 150)
Benzo(k)fluoranthene-d12	86	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	91	(25 - 150)
Dibenz(ah)anthracene-d14	84	(25 - 150)
Benzo(ghi)perylene-d12	90	(25 - 150)
Fluorene d-10	101	(25 - 150)
13C6-Fluorene	51	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 060905

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-001 Work Order #...: HDF7W1AA Matrix.....: AIR
Date Sampled...: 06/09/05 Date Received..: 06/11/05
Prep Date.....: 06/14/05 Analysis Date..: 06/16/05
Prep Batch #...: 5166378
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**43000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**8200**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**39000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**41000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**39000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND G	1100	pg	EPA-14 1668
PCB 105 (BZ)	**2900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**6000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2300**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	77	(25 - 150)
13C12-PCB 28	117	(25 - 150)
13C12-PCB 77	104	(25 - 150)
13C12-PCB 81	99	(25 - 150)
13C12-PCB 118	93	(25 - 150)
13C12-PCB 114	91	(25 - 150)
13C12-PCB 105	92	(25 - 150)
13C12-PCB 126	100	(25 - 150)
13C12-PCB 167	119	(25 - 150)
13C12-PCB 156	122	(25 - 150)
13C12-PCB 169	121	(25 - 150)
13C12-PCB 180	107	(25 - 150)
13C12-PCB 170	101	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	67	(25 - 150)
13C12-PCB 19	48	(25 - 150)
13C12-PCB 54	131	(25 - 150)
13C12-PCB 111	110	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 060905

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-001 **Work Order #...:** HDF7W1AA **Matrix.....:** AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
1	▪ Method Blank

Comments/Nonconformance

1 PCB8 detected at 1300 pg in the method blank, sample results >10x blank concentration, no qualifications
2 PCB77 is reported with elevated reporting limits
3 PCB8, PCB105, and PCB118 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for _06/09/05_

[signature]	6/17/05 (PCB) 6/20/05 (PAH)
Reviewer	**Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/9/05

Jackie Doan
Reviewer

6/22/05
Date of Review

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-10-05 0817	PDR	[illegible]	Zero Calibration	"Cal OK"	Overcast, Hot, Humid SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Environmental Quality ManagementInc.
IHCDF

SITE

Location:	East Chicago	Date:	10-Jun-05
Sampler:	TE-1000	Tech:	Ben Letany

CONDITIONS

Sampler Elevation (feet):	583		
Sea Level Pressure (in Hg):	29.89	Corrected Pressure (mm Hg):	744
Temperature (deg F):	84	Temperature (deg K):	302
Seasonal SL Press. (in Hg):	30 32	Corrected Seasonal (mm Hg):	755
Seasonal Temp. (deg F):	70	Seasonal Temp. (deg K):	294

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.68477
Model:	TE-5040	Qstd Intercept:	0.03657
Serial#:	434	Date Certified:	3/8/2005

Flow Calculations

Plate or Test #	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	0.712	40.0	6.22	Slope =	8.6848
2	0.712	40.0	6.22	Intercept =	0.0366
3	0.712	40.0	6.22	Corr coeff =	1.0000
4	0.712	40.0	6.22		
5	0.703	39.0	6.14	# of Observations	5

Volume of air calc. (Qstd avg)(60 min) (hours sampled) = litres of air

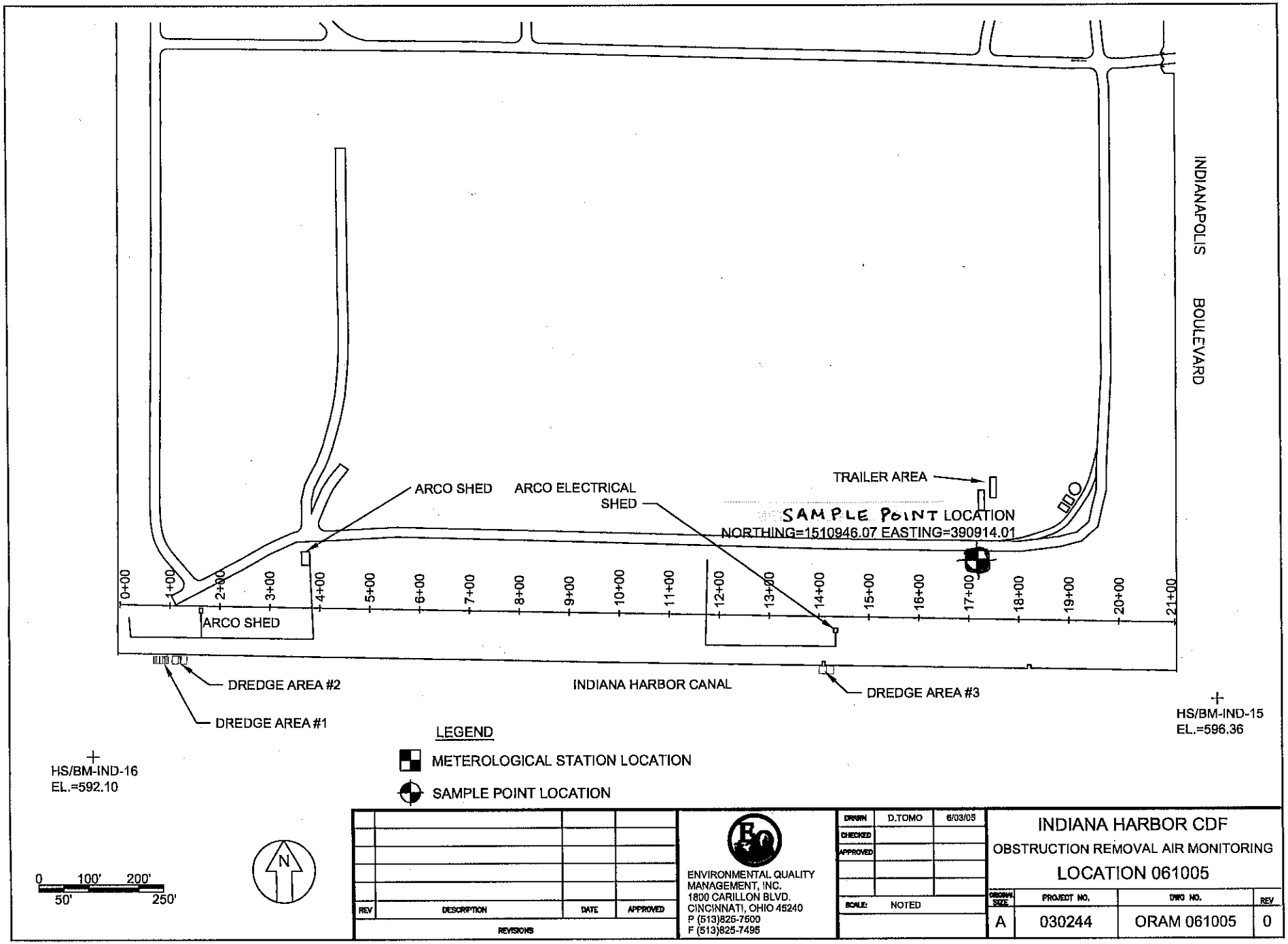
Qstd Avg = .7102(60)(24)

1,022.69 L

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061005

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061005	0

6-10-05

Enter city or US zip See weather related to GO

Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Arlene Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Mostly Cloudy **77°F**	**80°F**	72°F	83%	10.0 miles	29.89	Variable 7mph
	Sunrise at 5:15 AM						
5:50 AM	Mostly Cloudy **75°F**	**78°F**	72°F	89%	Unlimited	29.91 ↑	Variable 7mph
6:50 AM	Mostly Cloudy **77°F**	**80°F**	72°F	83%	Unlimited	29.91 →	From SE 9mph
7:50 AM	Cloudy **79°F**	**83°F**	73°F	83%	7.0 miles	29.92 ↑	From S 9mph
8:50 AM	Cloudy **79°F**	**83°F**	73°F	83%	10.0 miles	29.94 ↑	From SSW 12mph
9:50 AM	Mostly Cloudy **81°F**	**87°F**	75°F	84%	7.0 miles	29.93 ↓	From S 9mph
10:50 AM	Mostly Cloudy **82°F**	**88°F**	73°F	74%	7.0 miles	29.93 →	From S 9mph
11:50 AM	Mostly Cloudy **86°F**	**93°F**	73°F	66%	10.0 miles	29.92 ↓	From S 12mph
12:50 PM	Mostly Cloudy **86°F**	**93°F**	73°F	66%	10.0 miles	29.91 ↓	From S 12mph
1:50 PM	Mostly Cloudy **88°F**	**95°F**	73°F	62%	10.0 miles	29.90 ↓	From S 9mph
2:50 PM	Mostly Cloudy **91°F**	**100°F**	73°F	55%	10.0 miles	29.88 ↓	From S 12mph

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Special Offers in East Chica

3:50 PM	Partly Cloudy **91°F**	**98°F**	72°F	52%	10.0 miles	29 86 ↓	From S 12mph
4:45 PM	Mostly Cloudy **91°F**	**100°F**	73°F	55%	10 0 miles	29 84 ↓	From SSW 9mph
6:50 PM	Mostly Cloudy **91°F**	**95°F**	66°F	43%	10 0 miles	29.85 ↑	From S 14mph
7:55 PM	Mostly Cloudy **86°F**	**89°F**	68°F	55%	10 0 miles	29.87 ↑	From S 14mph
Sunset at 8:23 PM							
8:48 PM	Mostly Cloudy **82°F**	**86°F**	68°F	62%	10 0 miles	29.88 ↑	From S 12mph
9:50 PM	Mostly Cloudy **82°F**	**86°F**	70°F	66%	10.0 miles	29 89 ↑	From S 12mph

Avg. 83.8 Avg. 29.89 Back to previous page

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- Local Mosquito Activity Levels
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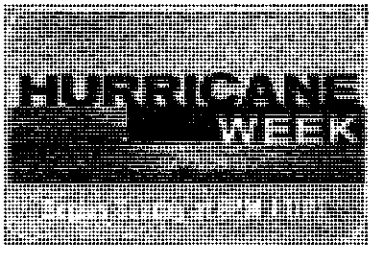

On-Air Schedule (ET)

Now	Weekend Planner
11 PM	Weekend Now
2 PM	Weekend Weather Center

Watch Hurricane Week Starting Sunday, June 5!

Tune to The Weather Channel Radio in your

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Driving Weather

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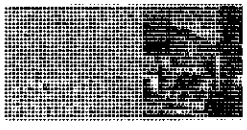

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Health

Weather a

Site: 030244
PN Indiana Harbor
Date: 06/10/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Voc061005					06:32	06:19	24	6
TO-13	Semi-Vol 061005					06:27	06:19	24	1,022.69L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: REMOVAL OF COFFER DAM
Weather conditions: OVERCAST, HOT, HUMID
Analytical lab: STL
COC Number: EQ-13110, EQ-13111

pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:14:54 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.089 mg/m³
Time at maximum: 10:16:19 Jun 10
Max STEL Concentration: 0.024 mg/m³
Time at max STEL: 10:20:25 Jun 10
Overall Avg Conc: 0.065 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	10:19:54	0.066

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:03:40 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.071 mg/m³
Time at maximum: 12:04:45 Jun 10
Max STEL Concentration: 0.020 mg/m³
Time at max STEL: 12:11:10 Jun 10
Overall Avg Conc: 0.041 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	12:08:40	0.044

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:06:07 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.077 mg/m³
Time at maximum: 14:07:49 Jun 10
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 14:14:37 Jun 10
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	14:11:07	0.043

pDR-1000 S/N: 00000
Tag Number: 04

Number of logged points: 5
Start time and date: 16:03:39 10-Jun
Elapsed time: 00:25:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.039 mg/m³
Time at maximum: 16:05:00 Jun 10
Max STEL Concentration: 0.020 mg/m³
Time at max STEL: 16:18:39 Jun 10
Overall Avg Conc: 0.017 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	16:08:39	0.027

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-13110**

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lefany Ben Lefany / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15
VOC 060105	6-1-05	24hr.	Summa Canister	6 liter	1	+

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lefany	6-1-05	0515	[illegible]	6/1/05	0815
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: ~~Site - Pick up on Site~~ Drop to Site - UPS

Airbill Number

Reporting/QA Requirements

Turn Around Time (***EXACT DUE DATE***) 6/20/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13111**

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lebang / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi-Vol 061005	6-11-05	24hr.	Filter	1,022.69L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lebang	6-11-05	0815	Wendy [illegible]	6/11/05	8:15
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: ~~STL - Pick up on Site~~ DROPOFF at STL - Valpo

Airbill Number

Reporting/QA Requirements

Turn Around Time (***EXACT DUE DATE***) 6/20/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061005

GC/MS Volatiles

Lot-Sample #...: G5F110218-006
Date Sampled...: 06/11/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDKVF1AC
Date Received..: 06/14/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.036	0.020	ppb(v/v)
Toluene	0.38	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.094	0.040	ppb(v/v)
o-Xylene	0.039	0.020	ppb(v/v)
Benzene	0.14	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061005

GC/MS Semivolatiles

Lot-Sample #...: G5F110218-002
Date Sampled...: 06/11/05
Prep Date.....: 06/14/05
Prep Batch #...: 5166375

Work Order #...: HDJP71AC
Date Received..: 06/14/05
Analysis Date..: 06/16/05
Method.....: SW846 8270C SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**2100**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2100**	**500**	**ng**
Fluorene	**3100**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**4800**	**1000**	**ng**
Phenanthrene	**9800**	**500**	**ng**
Pyrene	**1300**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	80	(25 - 150)
Acenaphthylene-d8	80	(25 - 150)
Acenaphthene-d10	81	(25 - 150)
Phenanthrene-d10	94	(25 - 150)
Benzo(a)pyrene-d12	83	(25 - 150)
Fluoranthene-d10	89	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	90	(25 - 150)
Chrysene-d12	76	(25 - 150)
Benzo(b)fluoranthene-d12	84	(25 - 150)
Benzo(k)fluoranthene-d12	90	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	83	(25 - 150)
Dibenz(ah)anthracene-d14	81	(25 - 150)
Benzo(ghi)perylene-d12	85	(25 - 150)
Fluorene d-10	94	(25 - 150)
13C6-Fluorene	29	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061005

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-002 Work Order #...: HDJP71AA Matrix.....: AIR
Date Sampled...: 06/11/05 Date Received..: 06/14/05
Prep Date.....: 06/14/05 Analysis Date..: 06/16/05
Prep Batch #...: 5166378
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**36000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**7000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**34000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**36000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**35000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND G	1200	pg	EPA-14 1668
PCB 105 (BZ)	**2900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5900**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2500**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	106	(25 - 150)
13C12-PCB 28	122	(25 - 150)
13C12-PCB 77	111	(25 - 150)
13C12-PCB 81	114	(25 - 150)
13C12-PCB 118	96	(25 - 150)
13C12-PCB 114	101	(25 - 150)
13C12-PCB 105	101	(25 - 150)
13C12-PCB 126	102	(25 - 150)
13C12-PCB 167	118	(25 - 150)
13C12-PCB 156	122	(25 - 150)
13C12-PCB 169	122	(25 - 150)
13C12-PCB 180	105	(25 - 150)
13C12-PCB 170	100	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	24 *	(25 - 150)
13C12-PCB 19	22 *	(25 - 150)
13C12-PCB 54	87	(25 - 150)
13C12-PCB 111	116	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061005

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-002 **Work Order #...:** HDJP71AA **Matrix.....:** AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
1	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
2	▪ Method Blank

Comments/Nonconformance

1 PCB surrogates 13C12-PCB4, 13C12-PCB19 recovered (24 & 22, respectively) below limits (25-150), all other %R within limits, results qualified as estimated
2 PCB8 detected at 1300 pg in the method blank, sample results >10x blank concentration, no qualifications
3 PCB77 is reported with elevated reporting limit
4 PCB8 and PCB105 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for 06/10/05

[signature]	6/17/05 (PCB) 6/20/05 (PAH)
Reviewer	**Date of Review**

Checklist - Preliminary Analytical Report

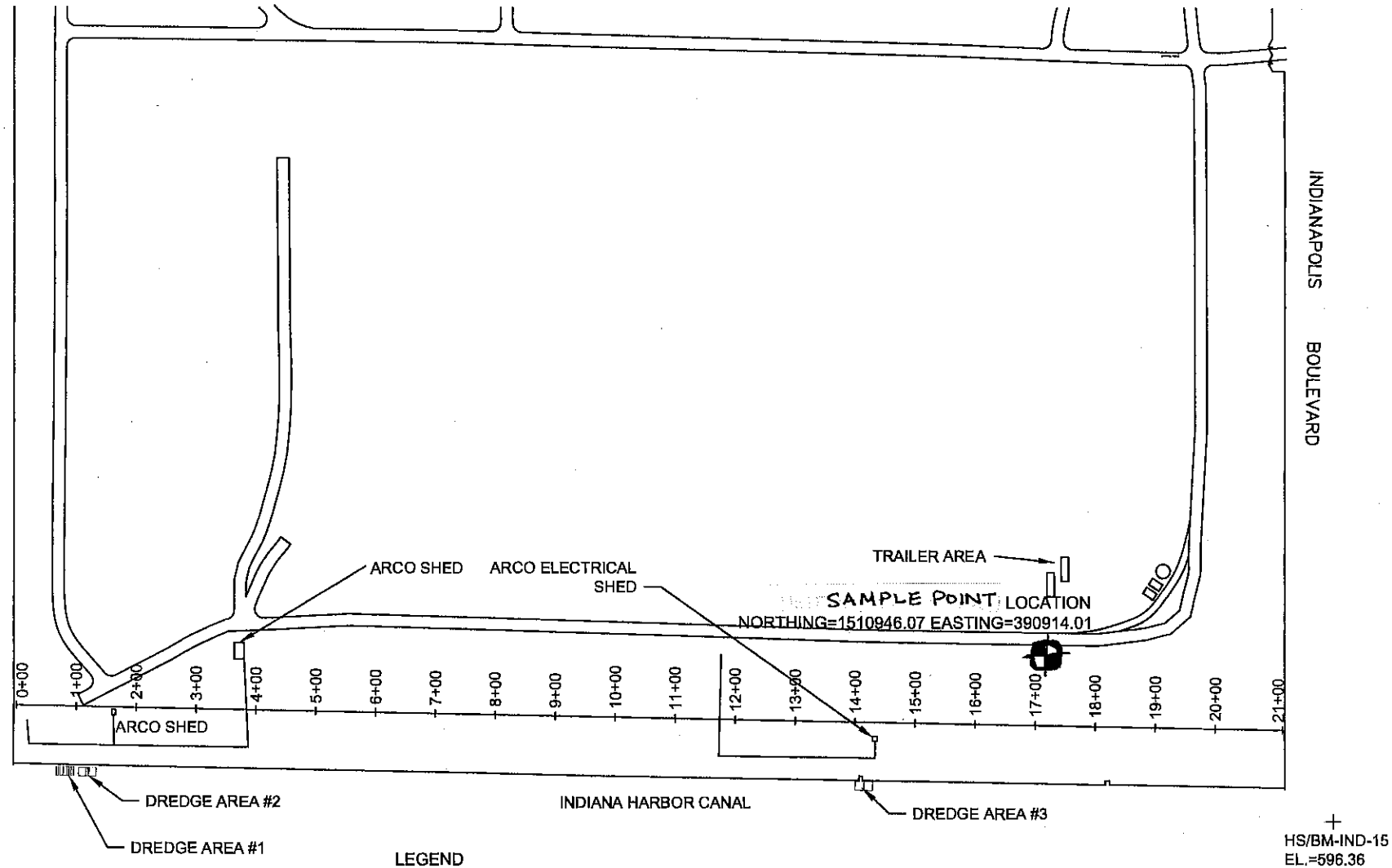
✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/10/05

Jackie Koen — 6/22/05

Reviewer **Date of Review**



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061105

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061105	0

Site: Indiana Harbor
PN 030244
Date: 06 / 11 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	VOC061105					06:35	06:21	24	6
TO-13	SemiVol061105					06:29	06:21	24	1,030.75
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: NONE, Dredge Spoil covered in pit
Weather conditions: Sunny, Hot, Humid
Analytical lab: STL
COC Number: EQ-13112, EQ-13113

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13112**

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotany / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15
VOC 061105	6-17-05	24hr.	Summa Canister	6 liter	1	X
VOC 061205	6-13-05	24hr.	Summa Canister	6 liter	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Ship To
[signature]	6-13-05	0905	[signature]	6-13-05	9:05	STL - Pick up on Site
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Airbill Number

Reporting/QA Requirements	Turn Around Time (***EXACT DUE DATE***)	Report To	Chain of Custody Seal Numbers
	6/21/05	JACKIE DOAN	

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13113**

Project No	Project Name
030 244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotang

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: To-13/8270	TO-13/1668
Semi-Vol 06 1105	6-12-05	24hr	Filter	1,030.75 L	2	x	x
Semi-Vol 06 1205	6-13-05	24hr	Filter	1,032.19 L	2	x	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lotang	6-17-05	0905	[illegible]	6-17-05	9:05
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: Site - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/21/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061105

GC/MS Volatiles

Lot-Sample #...: G5F110218-007
Date Sampled...: 06/12/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDKVL1AC
Date Received..: 06/14/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.033	0.020	ppb(v/v)
Toluene	0.17	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.063	0.040	ppb(v/v)
o-Xylene	0.027	0.020	ppb(v/v)
Benzene	0.086	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061105

GC/MS Semivolatiles

Lot-Sample #...: G5F110218-003
Date Sampled...: 06/12/05
Prep Date.....: 06/14/05
Prep Batch #...: 5166375

Work Order #...: HDJQC1AC
Date Received..: 06/14/05
Analysis Date..: 06/16/05
Method.....: SW846 8270C SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**1400**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1500**	**500**	**ng**
Fluorene	**2300**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**3700**	**1000**	**ng**
Phenanthrene	**7300**	**500**	**ng**
Pyrene	**960**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	81	(25 - 150)
Acenaphthylene-d8	83	(25 - 150)
Acenaphthene-d10	89	(25 - 150)
Phenanthrene-d10	98	(25 - 150)
Benzo(a)pyrene-d12	84	(25 - 150)
Fluoranthene-d10	92	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	93	(25 - 150)
Chrysene-d12	79	(25 - 150)
Benzo(b)fluoranthene-d12	90	(25 - 150)
Benzo(k)fluoranthene-d12	91	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	89	(25 - 150)
Dibenz(ah)anthracene-d14	102	(25 - 150)
Benzo(ghi)perylene-d12	93	(25 - 150)
Fluorene d-10	95	(25 - 150)
13C6-Fluorene	20 *	(25 - 150)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061105

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-003 **Work Order #...:** HDJQC1AA **Matrix.....:** AIR
Date Sampled...: 06/12/05 **Date Received..:** 06/14/05
Prep Date.....: 06/14/05 **Analysis Date..:** 06/16/05
Prep Batch #...: 5166378
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**17000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**4700**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**23000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**28000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**27000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1900**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**4300 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1500**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	103	(25 - 150)
13C12-PCB 28	109	(25 - 150)
13C12-PCB 77	99	(25 - 150)
13C12-PCB 81	106	(25 - 150)
13C12-PCB 118	93	(25 - 150)
13C12-PCB 114	95	(25 - 150)
13C12-PCB 105	100	(25 - 150)
13C12-PCB 126	105	(25 - 150)
13C12-PCB 167	109	(25 - 150)
13C12-PCB 156	116	(25 - 150)
13C12-PCB 169	117	(25 - 150)
13C12-PCB 180	100	(25 - 150)
13C12-PCB 170	100	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	15 *	(25 - 150)
13C12-PCB 19	24 *	(25 - 150)
13C12-PCB 54	82	(25 - 150)
13C12-PCB 111	114	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061105

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-003 **Work Order #...:** HDJQC1AA **Matrix.....:** AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
1	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
2	▪ Method Blank

Comments/Nonconformance

1 PCB surrogates 13C12-PCB4, 13C12-PCB19 recovered (15 & 24, respectively) below limits (25-150), all other %R within limits, results qualified as estimated
2 PCB8 detected at 1300 pg in the method blank, sample results >10x blank concentration, no qualifications
3 PCB8 and PCB118 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for _06/11/05_

Jackie [illegible] — 6/17/05 (PCB) 6/20/05 (PAH)

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

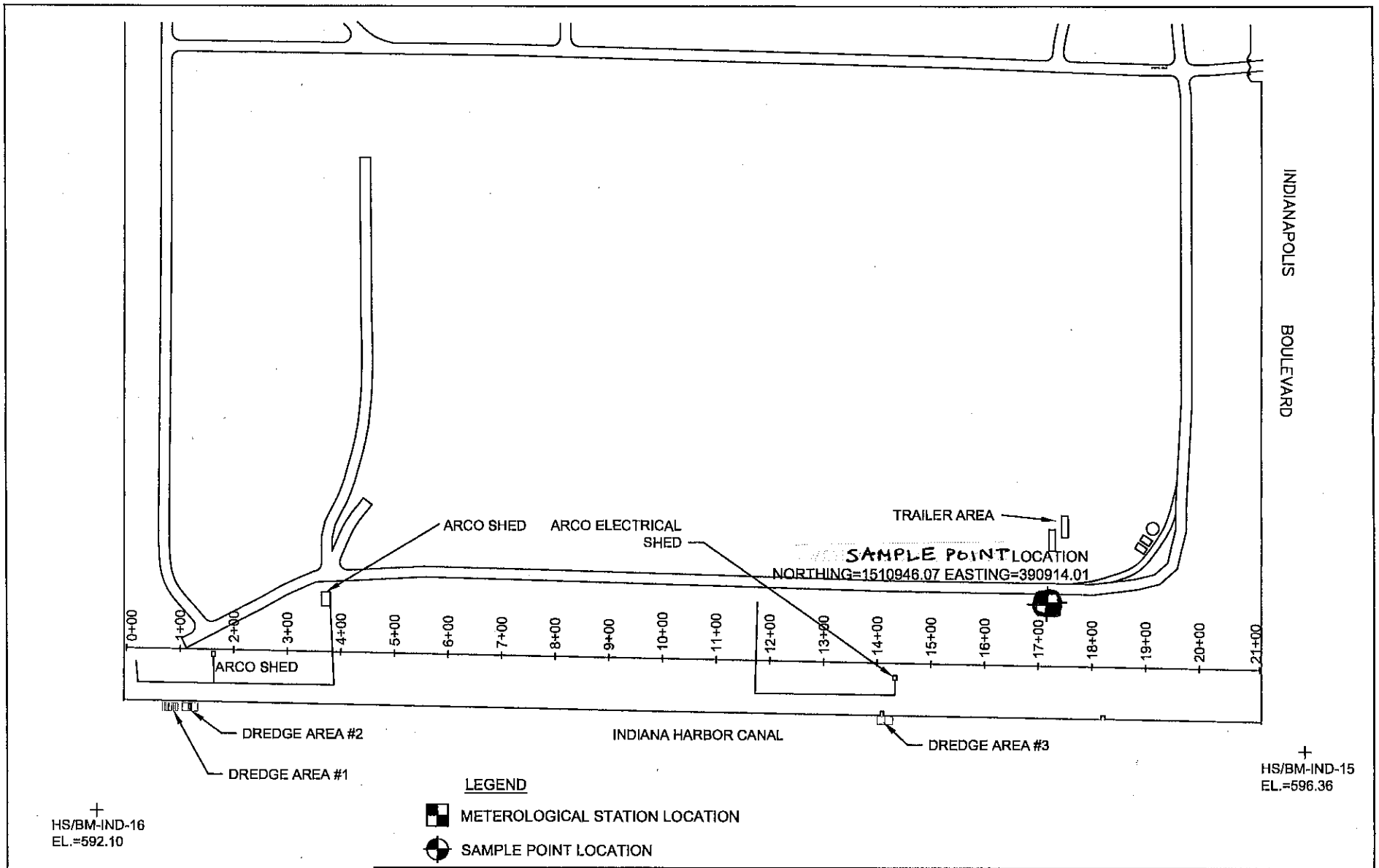
✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/11/05

Jackie Lee
Reviewer

6/22/05
Date of Review



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061205

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061205	0

Site: 030244
PN: IN HARBOR
Date: 06/12/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ HR	Air Volume, liters
TO-15	VOC061205					06:33	06:20	24	6
TO-13	Sam:-VOC061205					06:33	06:20	24	1,032.9L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BJ
Calculations by: BJ
Checked by: [illegible]

Activities performed on site: NONE, Dredge spoil covered in pit
Weather conditions: Cloudy, 83°
Analytical lab: STL
COC Number: EQ-13112, EQ-13113

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061205

GC/MS Volatiles

Lot-Sample #...: G5F110218-008
Date Sampled...: 06/13/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDKVM1AC
Date Received..: 06/14/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.091	0.020	ppb(v/v)
Toluene	0.43	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.27	0.040	ppb(v/v)
o-Xylene	0.073	0.020	ppb(v/v)
Benzene	0.28	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061205

GC/MS Semivolatiles

Lot-Sample #...: G5F110218-004 **Work Order #...:** HDJQE1AC **Matrix.....:** AIR
Date Sampled...: 06/13/05 **Date Received..:** 06/14/05
Prep Date.....: 06/14/05 **Analysis Date..:** 06/17/05
Prep Batch #...: 5166375 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**2900**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1900**	**500**	**ng**
Fluorene	**3700**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**16000**	**1000**	**ng**
Phenanthrene	**9800**	**500**	**ng**
Pyrene	**1300**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	86	(25 - 150)
Acenaphthylene-d8	90	(25 - 150)
Acenaphthene-d10	93	(25 - 150)
Phenanthrene-d10	99	(25 - 150)
Benzo(a)pyrene-d12	85	(25 - 150)
Fluoranthene-d10	92	(25 - 150)
Pyrene-d10	94	(25 - 150)
Benzo(a)anthracene-d12	97	(25 - 150)
Chrysene-d12	81	(25 - 150)
Benzo(b)fluoranthene-d12	103	(25 - 150)
Benzo(k)fluoranthene-d12	86	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	97	(25 - 150)
Dibenz(ah)anthracene-d14	95	(25 - 150)
Benzo(ghi)perylene-d12	92	(25 - 150)
Fluorene d-10	101	(25 - 150)
13C6-Fluorene	37	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061205

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-004 **Work Order #...:** HDJQE1AA **Matrix.....:** AIR
Date Sampled...: 06/13/05 **Date Received..:** 06/14/05
Prep Date.....: 06/14/05 **Analysis Date..:** 06/16/05
Prep Batch #...: 5166378
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**24000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**5200**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**27000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**30000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**27000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**4400 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1500**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	111	(25 - 150)
13C12-PCB 28	108	(25 - 150)
13C12-PCB 77	113	(25 - 150)
13C12-PCB 81	108	(25 - 150)
13C12-PCB 118	92	(25 - 150)
13C12-PCB 114	92	(25 - 150)
13C12-PCB 105	98	(25 - 150)
13C12-PCB 126	102	(25 - 150)
13C12-PCB 167	119	(25 - 150)
13C12-PCB 156	120	(25 - 150)
13C12-PCB 169	122	(25 - 150)
13C12-PCB 180	105	(25 - 150)
13C12-PCB 170	103	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	27	(25 - 150)
13C12-PCB 19	47	(25 - 150)
13C12-PCB 54	94	(25 - 150)
13C12-PCB 111	123	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061205

Trace Level Organic Compounds

Lot-Sample #...: G5F110218-004 Work Order #...: HDJQE1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
1	▪ Method Blank

Comments/Nonconformance

1 PCB8 detected at 1300 pg in the method blank, sample results >10x blank concentration, no qualifications
2 PCB8, PCB105, and PCB118 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for _06/12/05_

Reviewer

6/17/05 (PCB) 6/20/05 (PAH)
Date of Review

Checklist - Preliminary Analytical Report

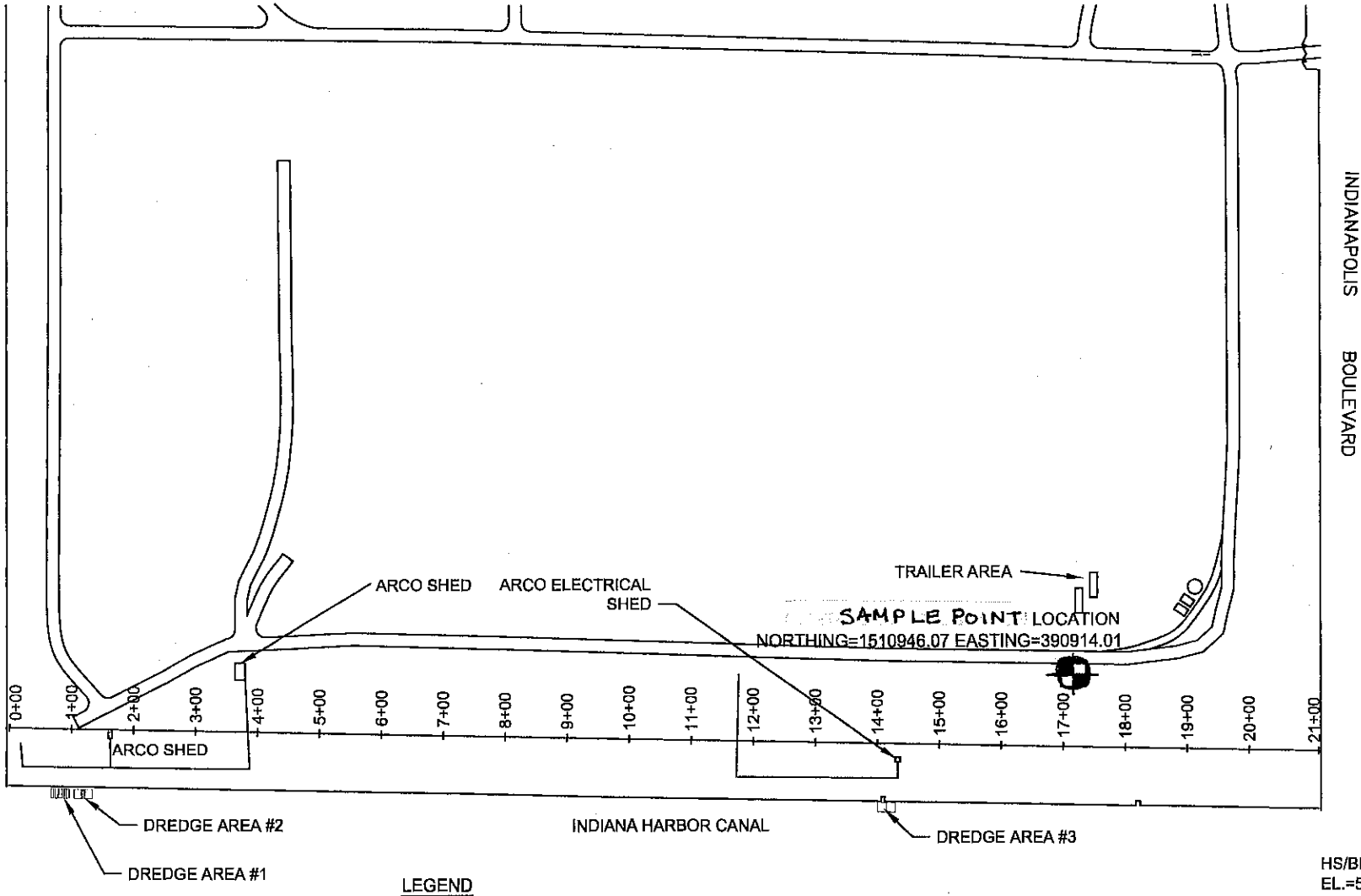
✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/12/05

Jackie Dean
Reviewer

6/22/05
Date of Review



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061305

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061305	0

Site: Indiana Harbor
PN 030244
Date: 6/13/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Voc 061305					06:35	06:25	24	6
TO-13	Semi-Vol 061305					06:35	06:25	24	990.72L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Moving Street + Equip. to Rail 2 area ; Sludge covered in pit
Weather conditions: Sunny, Hot, Humid
Analytical lab: STL COC Number: EO-13114, EO-13115

IHCDR Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:23:46 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.082 mg/m³
Time at maximum: 10:28:40 Jun 13
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 10:30:16 Jun 13
Overall Avg Conc: 0.045 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	10:28:46	0.045

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:38:12 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.202 mg/m³
Time at maximum: 12:45:07 Jun 13
Max STEL Concentration: 0.026 mg/m³
Time at max STEL: 12:46:42 Jun 13
Overall Avg Conc: 0.046 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	12:43:12	0.047

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:30:28 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.076 mg/m³
Time at maximum: 14:32:07 Jun 13
Max STEL Concentration: 0.017 mg/m³
Time at max STEL: 14:35:28 Jun 13
Overall Avg Conc: 0.052 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	14:35:28	0.052

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:39:28 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.076 mg/m³
Time at maximum: 16:39:43 Jun 13
Max STEL Concentration: 0.009 mg/m³
Time at max STEL: 16:44:28 Jun 13
Overall Avg Conc: 0.029 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	16:44:28	0.039

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061305

GC/MS Volatiles

Lot-Sample #...: G5F150240-002
Date Sampled...: 06/14/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172343

Work Order #...: HDPWG1AC
Date Received..: 06/15/05
Analysis Date..: 06/20/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.22	0.020	ppb(v/v)
Toluene	3.0	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.64	0.040	ppb(v/v)
o-Xylene	0.23	0.020	ppb(v/v)
Benzene	0.49	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061305

GC/MS Semivolatiles

Lot-Sample #...: G5F150240-001
Date Sampled...: 06/14/05
Prep Date.....: 06/16/05
Prep Batch #...: 5168427

Work Order #...: HDMN01AC
Date Received..: 06/15/05
Analysis Date..: 06/21/05
Method.....: SW846 8270C SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**2600**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2700**	**500**	**ng**
Fluorene	**4000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**6300**	**1000**	**ng**
Phenanthrene	**14000**	**500**	**ng**
Pyrene	**1600**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	75	(25 - 150)
Acenaphthylene-d8	84	(25 - 150)
Acenaphthene-d10	86	(25 - 150)
Phenanthrene-d10	93	(25 - 150)
Benzo(a)pyrene-d12	78	(25 - 150)
Fluoranthene-d10	83	(25 - 150)
Pyrene-d10	81	(25 - 150)
Benzo(a)anthracene-d12	85	(25 - 150)
Chrysene-d12	70	(25 - 150)
Benzo(b)fluoranthene-d12	84	(25 - 150)
Benzo(k)fluoranthene-d12	87	(25 - 150)
Perylene-d12	75	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	88	(25 - 150)
Dibenz(ah)anthracene-d14	98	(25 - 150)
Benzo(ghi)perylene-d12	91	(25 - 150)
Fluorene d-10	90	(25 - 150)
13C6-Fluorene	30	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061305

Trace Level Organic Compounds

Lot-Sample #...: G5F150240-001
Date Sampled...: 06/14/05
Prep Date.....: 06/16/05
Prep Batch #...: 5168428
Dilution Factor: 1

Work Order #...: HDMN01AA
Date Received..: 06/15/05
Analysis Date..: 06/18/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**36000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**7500**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**40000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**36000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**36000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND G	1100	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**2600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2200**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	60	(25 - 150)
13C12-PCB 28	81	(25 - 150)
13C12-PCB 77	95	(25 - 150)
13C12-PCB 81	88	(25 - 150)
13C12-PCB 118	102	(25 - 150)
13C12-PCB 114	99	(25 - 150)
13C12-PCB 105	104	(25 - 150)
13C12-PCB 126	109	(25 - 150)
13C12-PCB 167	86	(25 - 150)
13C12-PCB 156	89	(25 - 150)
13C12-PCB 169	90	(25 - 150)
13C12-PCB 180	92	(25 - 150)
13C12-PCB 170	92	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	43	(25 - 150)
13C12-PCB 19	52	(25 - 150)
13C12-PCB 54	76	(25 - 150)
13C12-PCB 111	114	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061305

Trace Level Organic Compounds

Lot-Sample #...: G5F150240-001 Work Order #...: HDMN01AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
1	▪ Method Blank

Comments/Nonconformance

1 PCB8 detected at 1600 pg in the method blank, sample results >10x blank concentration, no qualifications
2 PCB77 is reported with elevated reporting limits
3 PCB8, PCB105, and PCB118 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for _06/13/05_

Jackie D — 6/21/05 (PCB) 6/23/05 (PAHs)

Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

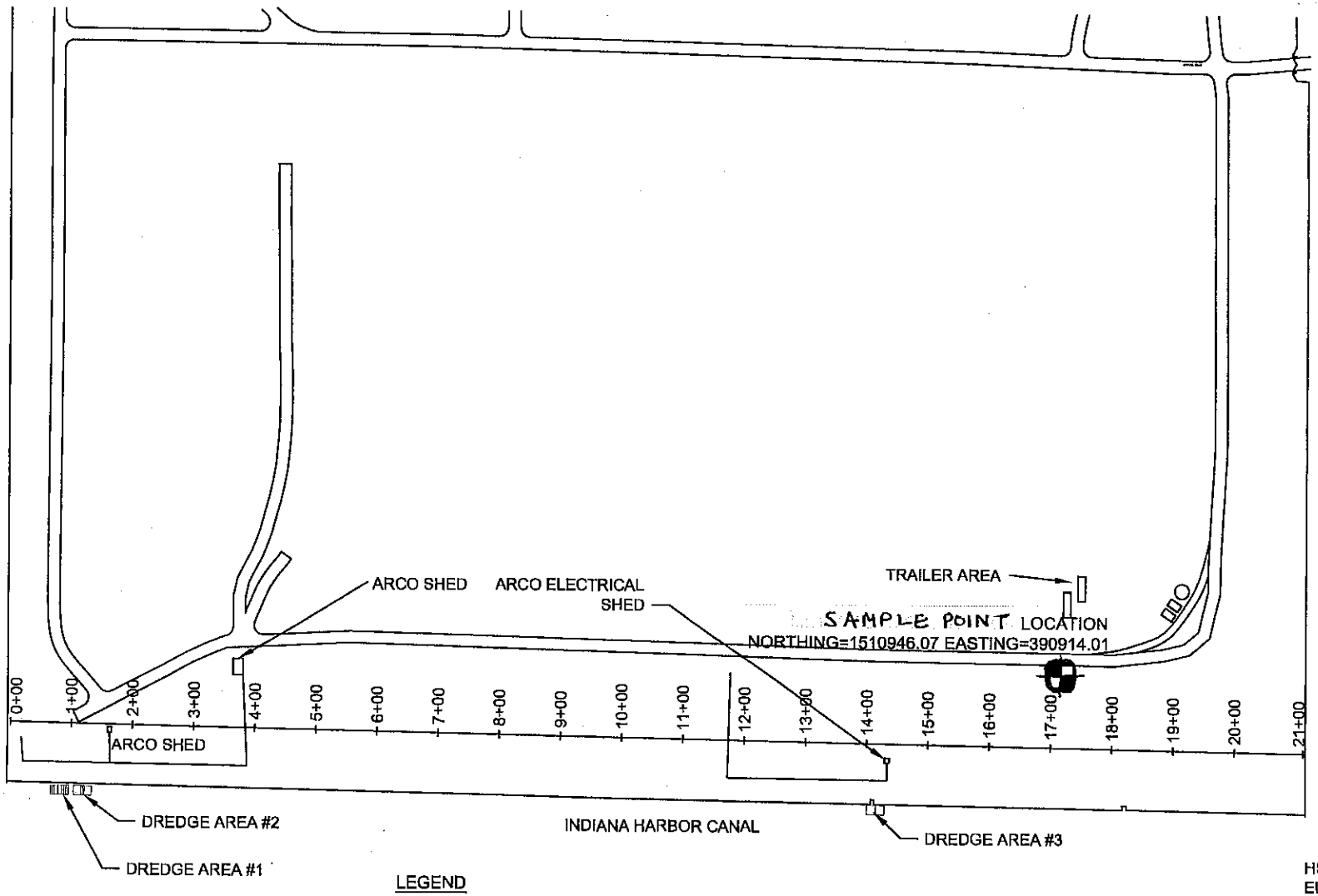
✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/13/05

Jackie Doan — 6/22/05

Reviewer — **Date of Review**



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061405

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061405	0

Site:	IN HARBOR CDF
PN	030244
Date:	06 / 14 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ HR	Air Volume, liters
TO-15	061405					06:35	06:20	24	6
TO-13	Sum Vol 061405					06:35	06:20	24	986.1
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Move Turb. Curtain, Drive Site
Weather conditions: Sunny, warm, SW wind
Analytical lab: SL COC Number: EQ-, EQ-

IHCDF Obstruction Removal
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:23:59 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.032 mg/m³
Time at maximum: 10:24:16 Jun 14
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 10:28:59 Jun 14
Overall Avg Conc: 0.012 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	10:28:59	0.012

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:32:46 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.017 mg/m³
Time at maximum: 12:37:15 Jun 14
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 12:35:16 Jun 14
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	12:37:46	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:42:02 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.035 mg/m³
Time at maximum: 14:42:03 Jun 14
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 14:47:32 Jun 14
Overall Avg Conc: 0.007 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	14:47:02	0.008

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:40:01 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.211 mg/m³
Time at maximum: 16:44:00 Jun 14
Max STEL Concentration: 0.012 mg/m³
Time at max STEL: 16:48:31 Jun 14
Overall Avg Conc: 0.020 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	16:45:01	0.024

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061405

GC/MS Volatiles

Lot-Sample #...: G5F150240-004 Work Order #...: HDQP71AC Matrix.....: AIR
Date Sampled...: 06/15/05 Date Received..: 06/16/05
Prep Date.....: 06/20/05 Analysis Date..: 06/20/05
Prep Batch #...: 5172343 Method.....: EPA-2 TO-15 SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.021	0.020	ppb(v/v)
Toluene	0.17	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.059	0.040	ppb(v/v)
o-Xylene	0.023	0.020	ppb(v/v)
Benzene	0.092	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 061405

GC/MS Semivolatiles

Lot-Sample #...: G5F150240-003
Date Sampled...: 06/15/05
Prep Date.....: 06/16/05
Prep Batch #...: 5168427

Work Order #...: HDP4F1AC
Date Received..: 06/16/05
Analysis Date..: 06/21/05
Method.....: SW846 8270C SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**3100**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1400**	**500**	**ng**
Fluorene	**3200**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**6100**	**1000**	**ng**
Phenanthrene	**8400**	**500**	**ng**
Pyrene	**910**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	69	(25 - 150)
Acenaphthylene-d8	88	(25 - 150)
Acenaphthene-d10	87	(25 - 150)
Phenanthrene-d10	100	(25 - 150)
Benzo(a)pyrene-d12	89	(25 - 150)
Fluoranthene-d10	90	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	87	(25 - 150)
Chrysene-d12	74	(25 - 150)
Benzo(b)fluoranthene-d12	96	(25 - 150)
Benzo(k)fluoranthene-d12	90	(25 - 150)
Perylene-d12	87	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	92	(25 - 150)
Dibenz(ah)anthracene-d14	92	(25 - 150)
Benzo(ghi)perylene-d12	89	(25 - 150)
Fluorene d-10	98	(25 - 150)
13C6-Fluorene	39	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 061405

Trace Level Organic Compounds

Lot-Sample #...: G5F150240-003
Date Sampled...: 06/15/05
Prep Date.....: 06/16/05
Prep Batch #...: 5168428
Dilution Factor: 1

Work Order #...: HDP4F1AA
Date Received..: 06/16/05
Analysis Date..: 06/18/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**17000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**3700**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**26000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**18000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**18000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**1900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	67	(25 - 150)
13C12-PCB 28	80	(25 - 150)
13C12-PCB 77	96	(25 - 150)
13C12-PCB 81	92	(25 - 150)
13C12-PCB 118	100	(25 - 150)
13C12-PCB 114	101	(25 - 150)
13C12-PCB 105	103	(25 - 150)
13C12-PCB 126	114	(25 - 150)
13C12-PCB 167	87	(25 - 150)
13C12-PCB 156	93	(25 - 150)
13C12-PCB 169	90	(25 - 150)
13C12-PCB 180	94	(25 - 150)
13C12-PCB 170	94	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	51	(25 - 150)
13C12-PCB 19	79	(25 - 150)
13C12-PCB 54	94	(25 - 150)
13C12-PCB 111	117	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 061405

Trace Level Organic Compounds

Lot-Sample #...: G5F150240-003 Work Order #...: HDP4F1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
1	▪ Method Blank

Comments/Nonconformance

1 PCB8 detected at 1600 pg in the method blank, sample results >10x blank concentration, no qualifications
2 PCB8 and PCB118 exhibited co-eluting isomers, results are qualified as estimated

PAH and PCB data for 06/14/05

Jackie Dow
Reviewer

6/21/05 (PCB) 6/23/05 (PAHs)
Date of Review

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/14/05

Jackie Dee
Reviewer

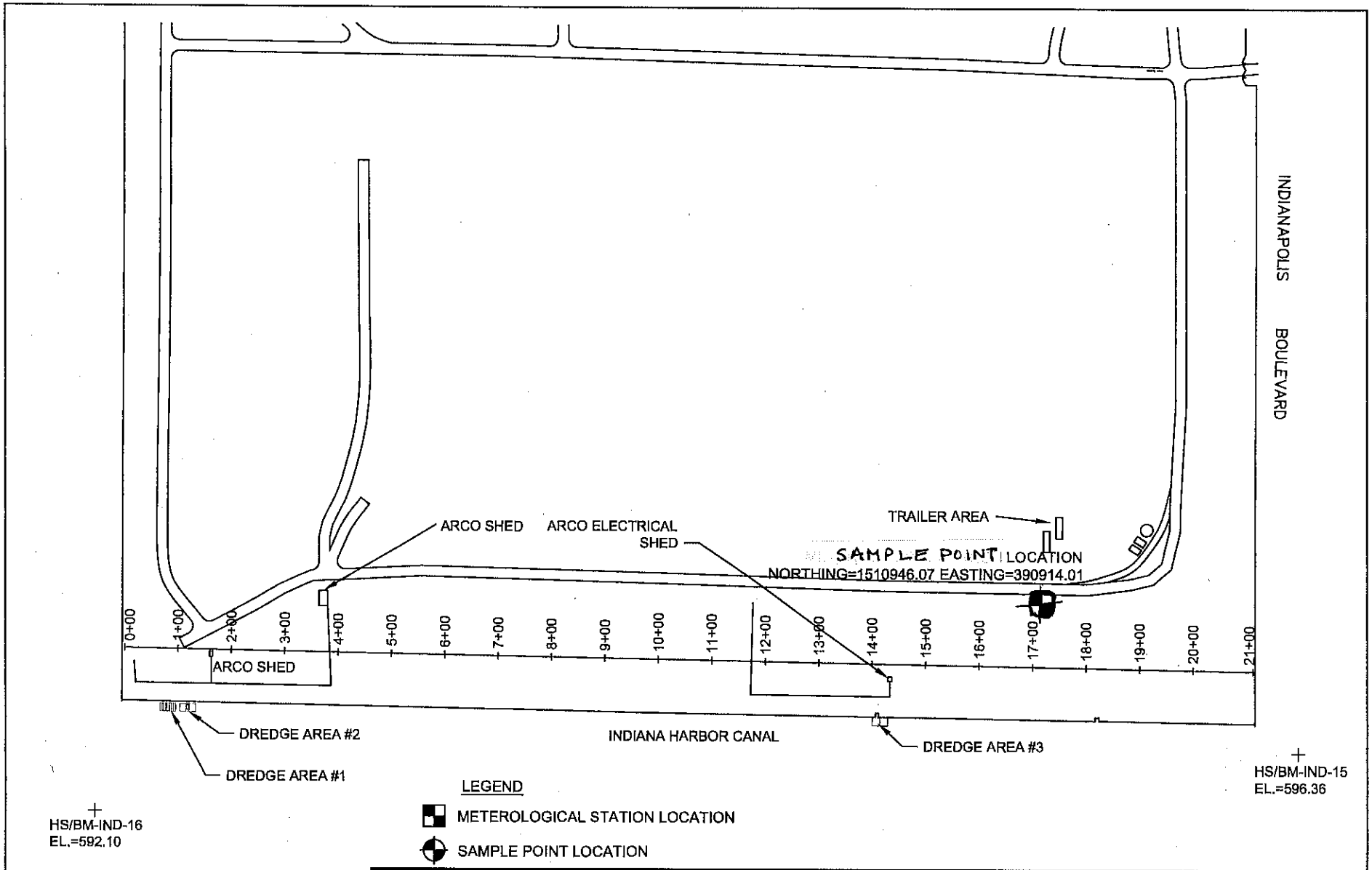
6/20/05
Date of Review

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-15-05 0917	PDR	[illegible]	Zero Calibration	"Cal OK"	Cloudy, 70° SW wind 10-20 mph

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061505

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061505	0

Site: Indiana Harbor
PN 030244
Date: 06 / 15 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR.	Air Volume, liters
TD-15	Hx061505					06:30	06:20	24	6
TD-13	Sani-Hx061505					06:30	06:10	23.67	1,018.85
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BJS
Calculations by: BJS
Checked by: Jack M

Activities performed on site: Setting STEEL FOR COFFER DAM
Weather conditions: Cloudy, 70°, SW wind
Analytical lab: STL
COC Number: EQ-13118, EQ-13119

IHCDF Obstruction Removal Particulate Monitoring

pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:32:40 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.054 mg/m³
Time at maximum: 10:38:18 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 10:41:10 Jun 15
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	10:37:40	0.003

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:31:58 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.034 mg/m³
Time at maximum: 12:32:44 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 12:36:58 Jun 15
Overall Avg Conc: 0.008 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	12:36:58	0.01

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:36:23 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.103 mg/m³
Time at maximum: 14:43:26 Jun 15
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 14:42:23 Jun 15
Overall Avg Conc: 0.011 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	14:41:23	0.01

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:31:07 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.027 mg/m³
Time at maximum: 16:33:38 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 16:35:37 Jun 15
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	16:36:07	0.014

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13119

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lefang / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: TO-15											
1/0x 060505	6/6/05	24hr.	Summa Canister	6 l. tot	1	X											

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Ship To
[signature]	6/6/05	0537	[signature]	6/6/05	837	STL - Pick up on Site
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Airbill Number

Reporting/QA Requirements	Turn Around Time (***EXACT DUE DATE***)	Report To	Chain of Custody Seal Numbers
	6/24/05	Jackie Doan	

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13118

Project No	Project Name
03C244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Cotney / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/3270	TO-13/1668
Semi-Vol 061505	6/6/05	2367	Filter	1,018.85 L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Cotney	6/6/05	0837	Jenny Hulla	6/6/05	837
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site.

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/24/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061505

GC/MS Volatiles

Lot-Sample #...: G5F170251-002
Date Sampled...: 06/16/05
Prep Date.....: 06/22/05
Prep Batch #...: 5174299

Work Order #...: HDWPG1AC
Date Received..: 06/17/05
Analysis Date..: 06/22/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.085	0.020	ppb(v/v)
Toluene	0.46	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.23	0.040	ppb(v/v)
o-Xylene	0.072	0.020	ppb(v/v)
Benzene	0.25	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061505

GC/MS Semivolatiles

Lot-Sample #...: G5F170251-001
Date Sampled...: 06/16/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172485
Dilution Factor: 1

Work Order #...: HDVD31AC
Date Received..: 06/17/05
Analysis Date..: 06/24/05

Matrix.....: AIR

Method.....: SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**2600**	**500**	**ng**
Acenaphthylene	**920**	**500**	**ng**
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	**900**	**500**	**ng**
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1500**	**500**	**ng**
Fluorene	**3100**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**15000**	**1000**	**ng**
Phenanthrene	**8800**	**500**	**ng**
Pyrene	**1400**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	59	(25 - 150)
Acenaphthylene-d8	77	(25 - 150)
Acenaphthene-d10	81	(25 - 150)
Phenanthrene-d10	98	(25 - 150)
Benzo(a)pyrene-d12	90	(25 - 150)
Fluoranthene-d10	87	(25 - 150)
Pyrene-d10	84	(25 - 150)
Benzo(a)anthracene-d12	77	(25 - 150)
Chrysene-d12	62	(25 - 150)
Benzo(b)fluoranthene-d12	103	(25 - 150)
Benzo(k)fluoranthene-d12	86	(25 - 150)
Perylene-d12	84	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	94	(25 - 150)
Dibenz(ah)anthracene-d14	104	(25 - 150)
Benzo(ghi)perylene-d12	88	(25 - 150)
Fluorene d-10	88	(25 - 150)
13C6-Fluorene	49	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061505

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-001
Date Sampled...: 06/16/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172483
Dilution Factor: 1

Work Order #...: HDVD31AA
Date Received..: 06/17/05
Analysis Date..: 06/22/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**21000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**2800**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**13000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**8000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**8000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**1200 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	72	(25 - 150)
13C12-PCB 28	79	(25 - 150)
13C12-PCB 77	87	(25 - 150)
13C12-PCB 81	85	(25 - 150)
13C12-PCB 118	89	(25 - 150)
13C12-PCB 114	88	(25 - 150)
13C12-PCB 105	89	(25 - 150)
13C12-PCB 126	90	(25 - 150)
13C12-PCB 167	81	(25 - 150)
13C12-PCB 156	85	(25 - 150)
13C12-PCB 169	84	(25 - 150)
13C12-PCB 180	84	(25 - 150)
13C12-PCB 170	84	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	39	(25 - 150)
13C12-PCB 19	86	(25 - 150)
13C12-PCB 54	92	(25 - 150)
13C12-PCB 111	121	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061505

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-001 Work Order #...: HDVD31AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

PAH and PCB data for 6/15/05

PCB 8 & PCB 18 exhibited coeluting isomers

Jackie Doan — 6/24/05, 6/28/05 (PAHs)

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/15/05

Jackie Doan
Reviewer

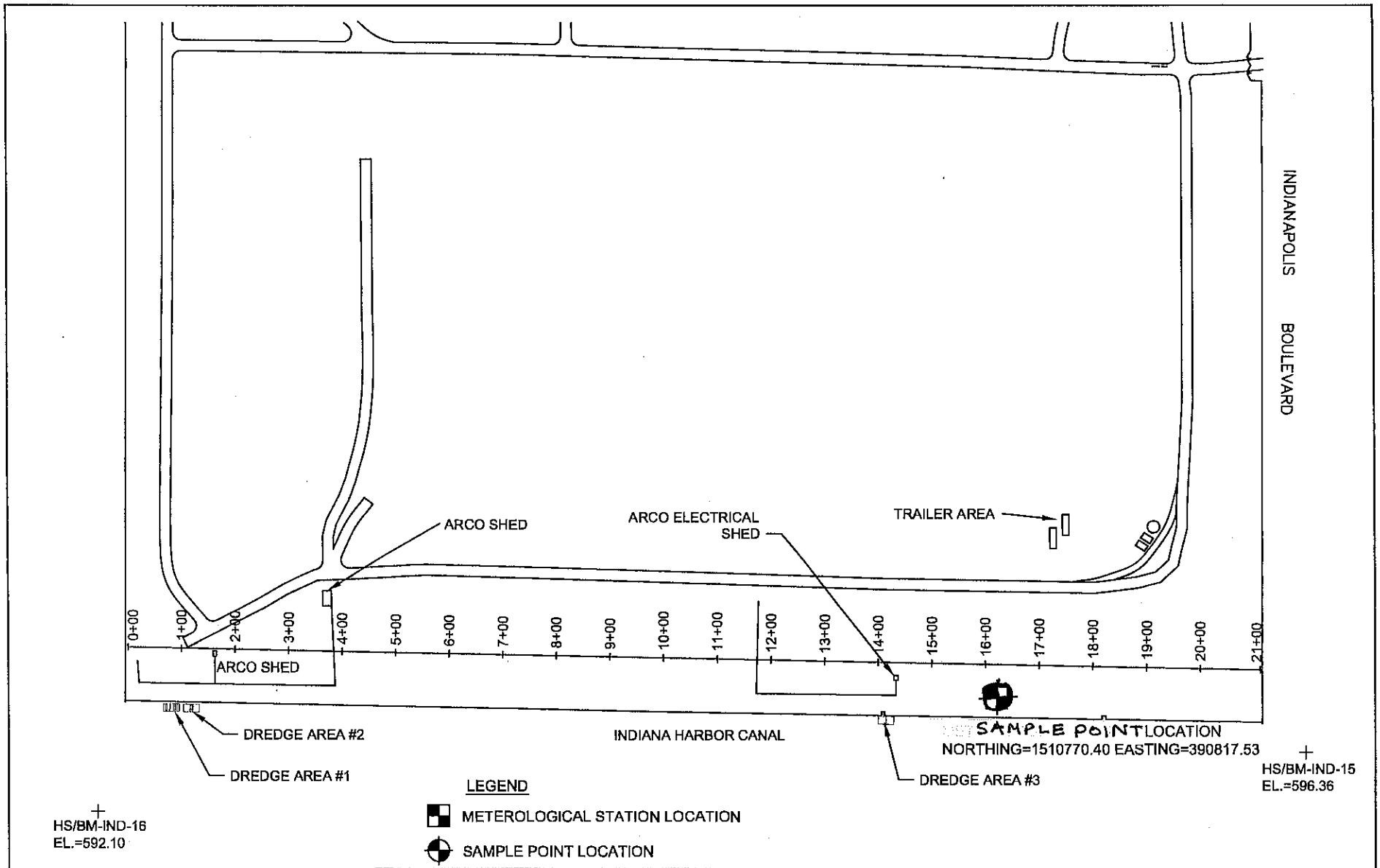
6/24/05
Date of Review

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-16-05 0909	PDR	[signature]	Zero Calibration	"Cal. OK"	Sunny, WNW wind 0-20 MPH, ≈ 70°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

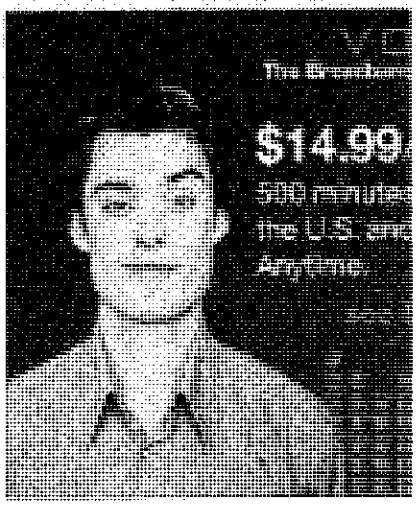
LOCATION 061605

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061605	0

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear **57 °F**	**57 °F**	55 °F	94%	Unlimited	29.89	From W 12 mph
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **61 °F**	**61 °F**	55 °F	82%	Unlimited	29.89 →	From WNW 9 mph
6:50 AM	Partly Cloudy **63 °F**	**63 °F**	54 °F	72%	Unlimited	29.89 →	From NW 9 mph
7:50 AM	Sunny **66 °F**	**66 °F**	50 °F	56%	Unlimited	29.92 ↑	From NNW 12 mph
8:50 AM	Sunny **68 °F**	**68 °F**	50 °F	52%	Unlimited	29.93 ↑	From NNW 12 mph
9:50 AM	Sunny **70 °F**	**70 °F**	52 °F	53%	Unlimited	29.92 ↓	From N 12 mph
10:50 AM	Sunny **70 °F**	**70 °F**	52 °F	53%	Unlimited	29.93 ↑	From N 12 mph
11:50 AM	Partly Cloudy **72 °F**	**72 °F**	50 °F	46%	Unlimited	29.92 ↓	From N 12 mph
12:50 PM	Partly Cloudy **73 °F**	**73 °F**	48 °F	41%	Unlimited	29.91 ↓	From NNW 7 mph
1:50 PM	Partly Cloudy **75 °F**	**74 °F**	48 °F	38%	Unlimited	29.90 ↓	From NNW 9 mph
2:50 PM	Partly Cloudy **75 °F**	**74 °F**	48 °F	38%	Unlimited	29.88 ↓	From NNE 9 mph
3:50 PM	Partly Cloudy **75 °F**	**74 °F**	46 °F	36%	Unlimited	29.86 ↓	From NE 9 mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Special Offers in East Chic

Wedding photography

4:50 PM	Partly Cloudy **75 °F**	**74 °F**	46 °F	36%	Unlimited	29.86 →	From NE 9 mph
5:45 PM	Partly Cloudy **75 °F**	**74 °F**	46 °F	36%	Unlimited	29.85 ↓	From NE 9 mph
6:50 PM	Partly Cloudy **73 °F**	**73 °F**	46 °F	38%	Unlimited	29.85 →	From NE 9 mph
7:50 PM	Partly Cloudy **70 °F**	**70 °F**	45 °F	40%	Unlimited	29.85 →	From NE 9 mph
Sunset at 8:26 PM							
8:46 PM	Partly Cloudy **63 °F**	**63 °F**	52 °F	68%	Unlimited	29.85 →	Variable 6 mph
9:50 PM	Partly Cloudy **57 °F**	**57 °F**	54 °F	88%	Unlimited	29.85 →	calm

Avg-69° - 29.89

Back to previous page

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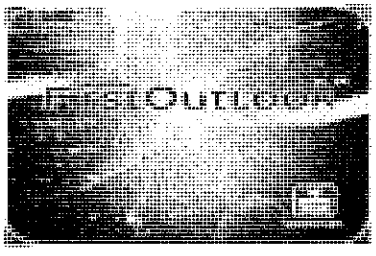

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

Tune to The Weather Channel Radio in your area!

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This Week's Features

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Driving Weather

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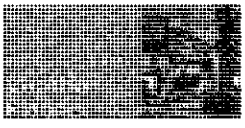
conditions

Summer Adventure



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Site: IN HARBOR
PN 030244
Date: 06 / 16 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HRS	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	[illegible]061605					06:37	06:10	23.5	6
TO-13	[illegible]061605					06:37	06:10	23.5	994.9L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by: [illegible]

Activities performed on site: INSTALL COFFER DAM; DREDGE SPOIL COVERED IN P.T
Weather conditions: SUNNY AVG 80° NW → NE WIND
Analytical lab: STL
COC Number: EQ-13120, EQ-13121

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:50:42 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.125 mg/m³
Time at maximum: 10:52:37 Jun 16
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 10:55:42 Jun 16
Overall Avg Conc: 0.016 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	10:55:42	0.018

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 13:36:20 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.021 mg/m³
Time at maximum: 13:37:36 Jun 16
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 13:37:50 Jun 16
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	13:41:20	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 15:19:14 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.027 mg/m³
Time at maximum: 15:21:05 Jun 16
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 15:21:44 Jun 16
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	15:24:14	0.009

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 17:43:13 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.052 mg/m³
Time at maximum: 17:47:18 Jun 16
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 17:47:43 Jun 16
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	17:48:13	0.007

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13121

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lelong / EQM

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13 8270	TO-13 11668
Sample Vol 060116.05	6/17/05	23.5hr	Filter	994.9L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lelong	6/17/05	0975	[illegible]	6/17	9:25
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/27/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13120

Project No	Project Name
030244	IN Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* [illegible] / [illegible] / EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-15
VOC 061605	6-17-05	23:46	Summa Canister	6 Liters	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	6-17-05	1525	[illegible]	6/17	9:25
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/27/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061605

GC/MS Volatiles

Lot-Sample #...: G5F170251-005
Date Sampled...: 06/17/05
Prep Date.....: 06/22/05
Prep Batch #...: 5174299

Work Order #...: HD1GA1AA
Date Received..: 06/20/05
Analysis Date..: 06/22/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.10	0.020	ppb(v/v)
Toluene	0.71	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.27	0.040	ppb(v/v)
o-Xylene	0.10	0.020	ppb(v/v)
Benzene	0.48	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061605

GC/MS Semivolatiles

Lot-Sample #...: G5F170251-003
Date Sampled...: 06/17/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172485
Dilution Factor: 1

Work Order #...: HD03L1AC
Date Received..: 06/20/05
Analysis Date..: 06/24/05

Matrix.....: AIR

Method.....: SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**620**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1200**	**500**	**ng**
Fluorene	**3400**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**10000**	**1000**	**ng**
Phenanthrene	**8300**	**500**	**ng**
Pyrene	**1000**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	56	(25 - 150)
Acenaphthylene-d8	77	(25 - 150)
Acenaphthene-d10	83	(25 - 150)
Phenanthrene-d10	92	(25 - 150)
Benzo(a)pyrene-d12	82	(25 - 150)
Fluoranthene-d10	86	(25 - 150)
Pyrene-d10	80	(25 - 150)
Benzo(a)anthracene-d12	68	(25 - 150)
Chrysene-d12	56	(25 - 150)
Benzo(b)fluoranthene-d12	96	(25 - 150)
Benzo(k)fluoranthene-d12	71	(25 - 150)
Perylene-d12	77	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	85	(25 - 150)
Dibenz(ah)anthracene-d14	94	(25 - 150)
Benzo(ghi)perylene-d12	80	(25 - 150)
Fluorene d-10	85	(25 - 150)
13C6-Fluorene	44	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061605

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-003
Date Sampled...: 06/17/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172483
Dilution Factor: 1

Work Order #...: HD03L1AA
Date Received..: 06/20/05
Analysis Date..: 06/22/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**28000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**4900**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**35000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**22000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**23000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**2000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	71	(25 - 150)
13C12-PCB 28	77	(25 - 150)
13C12-PCB 77	88	(25 - 150)
13C12-PCB 81	86	(25 - 150)
13C12-PCB 118	89	(25 - 150)
13C12-PCB 114	85	(25 - 150)
13C12-PCB 105	94	(25 - 150)
13C12-PCB 126	98	(25 - 150)
13C12-PCB 167	85	(25 - 150)
13C12-PCB 156	89	(25 - 150)
13C12-PCB 169	88	(25 - 150)
13C12-PCB 180	90	(25 - 150)
13C12-PCB 170	90	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	36	(25 - 150)
13C12-PCB 19	79	(25 - 150)
13C12-PCB 54	89	(25 - 150)
13C12-PCB 111	117	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061605

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-003 Work Order #...: HD03L1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

PAH and PCB data for 6/16/05

PCB 8+ PCB 18 exhibited coeluting isomers

Jackie Dean — 6/24/05, 6/27/05 (PAHs)

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/16/05

Jackie [illegible]
Reviewer

6/24/05
Date of Review

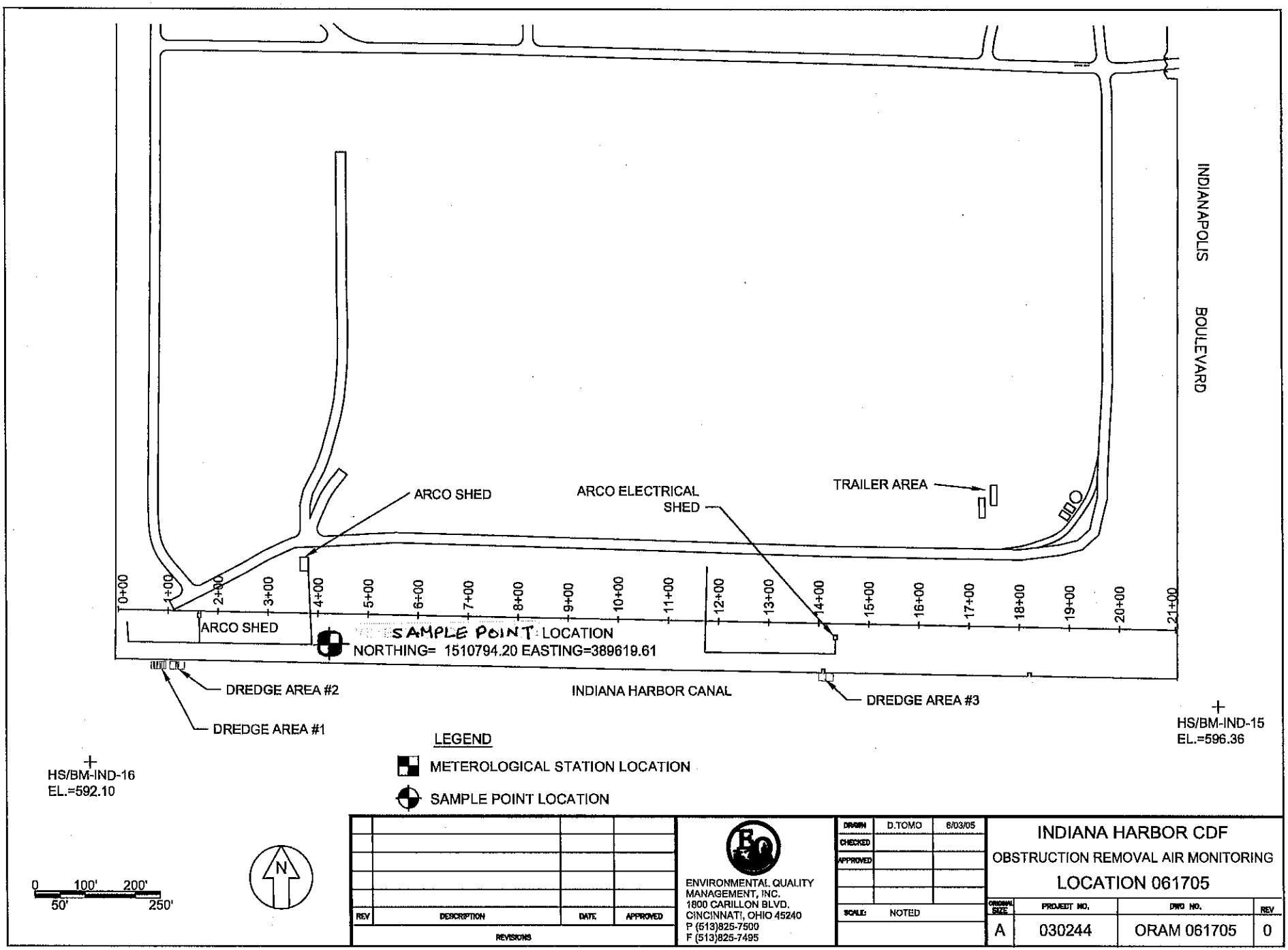
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-17-05 0912	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, ~70° N-NW WIND 10-20 MPH

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061705

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061705	0

Yesterday's Hourly Conditions as reported at Gary

Yesterday · Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:50 AM	Partly Cloudy 61°F	61°F	52°F	72%	Unlimited	29.86	From NNE 17mph
Sunrise at 5:15 AM							
5:50 AM	Partly Cloudy 61°F	61°F	52°F	72%	Unlimited	29.87 ↑	From N 14mph
6:50 AM	Partly Cloudy 63°F	63°F	54°F	72%	Unlimited	29.89 ↑	From N 14mph
7:50 AM	Partly Cloudy 64°F	64°F	54°F	68%	Unlimited	29.90 ↑	From N 12mph
8:50 AM	Partly Cloudy 66°F	66°F	54°F	64%	Unlimited	29.91 ↑	From N 12mph
9:50 AM	Partly Cloudy 70°F	70°F	54°F	56%	Unlimited	29.92 ↑	From NNW 12mph
10:50 AM	Mostly Cloudy 68°F	68°F	55°F	64%	Unlimited	29.93 ↑	From N 14mph
11:50 AM	Mostly Cloudy 68°F	68°F	57°F	68%	Unlimited	29.93 →	From NNE 14mph
12:50 PM	Partly Cloudy 66°F	66°F	55°F	68%	Unlimited	29.92 ↓	From NNE 14mph
1:50 PM	Mostly Cloudy 64°F	64°F	55°F	73%	Unlimited	29.94 ↑	From NNE 14mph
2:45 PM	Partly Cloudy 66°F	66°F	54°F	64%	Unlimited	29.93 ↓	From N 12mph
	Mostly						

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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3:45 PM		Cloudy 66°F	66°F	54°F	64%	Unlimited	29.93 →	From NNE 14mph
5:50 PM		Mostly Cloudy 63°F	63°F	52°F	68%	Unlimited	29.93 →	From N 12mph
6:52 PM		Mostly Cloudy 63°F	63°F	52°F	68%	Unlimited	29.94 ↑	From N 14mph
7:50 PM		Partly Cloudy 61°F	61°F	52°F	72%	Unlimited	29.94 →	From N 14mph
Sunset at 8:26 PM								
8:55 PM		Partly Cloudy 61°F	61°F	52°F	72%	10.0 miles	29.94 →	From NNW 12mph
9:55 PM		Partly Cloudy 61°F	61°F	52°F	72%	10.0 miles	29.95 ↑	From NNW 12mph

Avg. 64° — 29.93

Back to previous page

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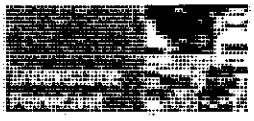
This Week's Features

Spring Lawn Care

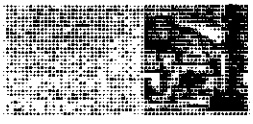
Tips to gro
yard in spr

Driving Weather



Check curr
conditions

Summer Adventure



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Weather

Site: IN HARBOR
PN 030244
Date: 06 / 17 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Vac 061705					06:30	06:10	24	6
TO-13	Semi-Vol 061705					06:30	06:20	24	1,050.6L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: DREDGING ; FINISH COFFER DAM
Weather conditions: SUNNY 65-75° NWNE WIND
Analytical lab: STL
COC Number: EQ-13122, EQ-13123

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:59:22 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.049 mg/m³
Time at maximum: 10:01:42 Jun 17
Max STEL Concentration: 0.014 mg/m³
Time at max STEL: 10:06:22 Jun 17
Overall Avg Conc: 0.030 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	10:04:22	0.031

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:56 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.015 mg/m³
Time at maximum: 11:26:17 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:25:56 Jun 17
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	11:30:56	0.001

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:19:04 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.024 mg/m³
Time at maximum: 13:19:31 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:19:04 Jun 17
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	13:24:04	0.002

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:27:30 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.019 mg/m³
Time at maximum: 15:30:11 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:27:30 Jun 17
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	15:32:30	0.003

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking EQ- 13122

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15											
VOC 06-1705	6-18-05	24hr.	Summa Canister	6 Liter	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-18-15	0505	[illegible]	6/18/05	0:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - DROP at VALPO.

Airbill Number

Reporting/QA Requirements	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	6/27/05	Jackie Dean	

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-[illegible]

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Gutary [illegible] / EQM

Lab P.O. No: 7132

Sample ID:	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/8270
Gui-Vol 061705	6-15-05	2142	Filter	1,050.6 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-15-05	[illegible]	[illegible]	[illegible]	[illegible]
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop At STL Valpo For Shipment

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/27/05

Report To: Jackie Dunn

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061705

GC/MS Volatiles

Lot-Sample #...: G5F170251-006
Date Sampled...: 06/18/05
Prep Date.....: 06/22/05
Prep Batch #...: 5174299

Work Order #...: HD1GL1AA
Date Received..: 06/20/05
Analysis Date..: 06/22/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.042	0.020	ppb(v/v)
Toluene	0.25	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.10	0.040	ppb(v/v)
o-Xylene	0.039	0.020	ppb(v/v)
Benzene	0.16	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061705

GC/MS Semivolatiles

Lot-Sample #...: G5F170251-004
Date Sampled...: 06/18/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172485
Dilution Factor: 1

Work Order #...: HD03V1AC
Date Received..: 06/20/05
Analysis Date..: 06/24/05

Matrix.....: AIR

Method.....: SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**1200**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	ND	500	ng
Fluorene	**1300**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**4500**	**1000**	**ng**
Phenanthrene	**2900**	**500**	**ng**
Pyrene	ND	500	ng

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	66	(25 - 150)
Acenaphthylene-d8	85	(25 - 150)
Acenaphthene-d10	86	(25 - 150)
Phenanthrene-d10	100	(25 - 150)
Benzo(a)pyrene-d12	90	(25 - 150)
Fluoranthene-d10	90	(25 - 150)
Pyrene-d10	85	(25 - 150)
Benzo(a)anthracene-d12	74	(25 - 150)
Chrysene-d12	60	(25 - 150)
Benzo(b)fluoranthene-d12	100	(25 - 150)
Benzo(k)fluoranthene-d12	88	(25 - 150)
Perylene-d12	85	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	90	(25 - 150)
Dibenz(ah)anthracene-d14	99	(25 - 150)
Benzo(ghi)perylene-d12	84	(25 - 150)
Fluorene d-10	92	(25 - 150)
13C6-Fluorene	70	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061705

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-004
Date Sampled...: 06/18/05
Prep Date.....: 06/20/05
Prep Batch #...: 5172483
Dilution Factor: 1

Work Order #...: HD03V1AA
Date Received..: 06/20/05
Analysis Date..: 06/22/05

Matrix.....: AIR

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**5900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	ND	1000	pg	EPA-14 1668
PCB 18 (BZ)	**4500**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**3300**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**2900**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	ND	1000	pg	EPA-14 1668
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	75	(25 - 150)
13C12-PCB 28	78	(25 - 150)
13C12-PCB 77	86	(25 - 150)
13C12-PCB 81	88	(25 - 150)
13C12-PCB 118	90	(25 - 150)
13C12-PCB 114	89	(25 - 150)
13C12-PCB 105	92	(25 - 150)
13C12-PCB 126	99	(25 - 150)
13C12-PCB 167	84	(25 - 150)
13C12-PCB 156	90	(25 - 150)
13C12-PCB 169	88	(25 - 150)
13C12-PCB 180	89	(25 - 150)
13C12-PCB 170	90	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	62	(25 - 150)
13C12-PCB 19	106	(25 - 150)
13C12-PCB 54	102	(25 - 150)
13C12-PCB 111	121	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: Semi-Vol 061705

Trace Level Organic Compounds

Lot-Sample #...: G5F170251-004 Work Order #...: HD03V1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance PAH and PCB data for 6/17/05 PCB 8 exhibited coeluting isomer	

Jackie Lon — 6/24/05, 6/28/05 PAHs

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/17/05	

Jackie [illegible] 6/24/05

Reviewer **Date of Review**

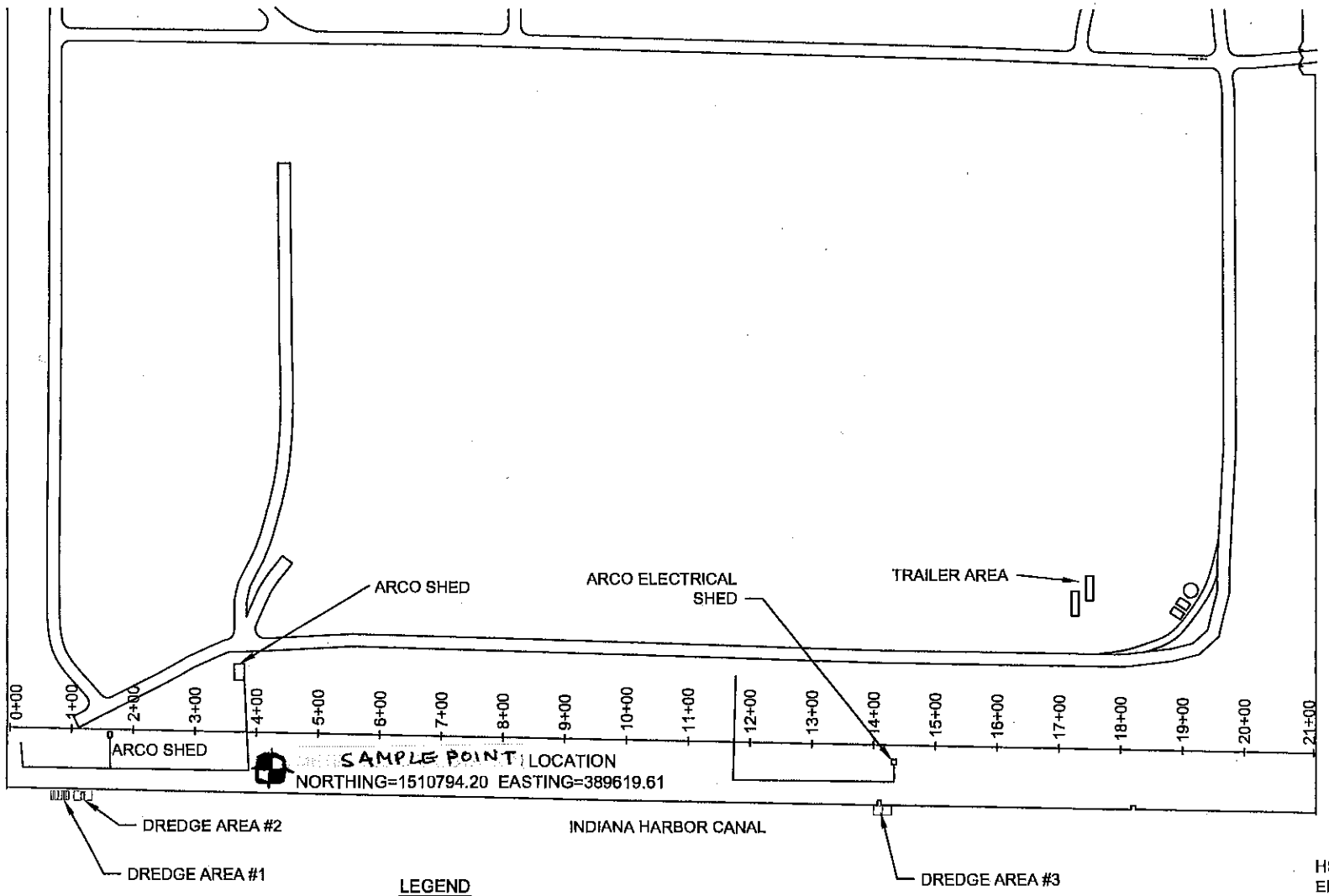
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Inorganic Humber Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6/18/05 0605	PDR	Sam Camino	Zero Calibration	"Cal OK"	Sunny, NW wind 65°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

O:\Tomo\INDIANA HARBOR AIR MONITOR\6-18-05.dwg, 7/7/2005 9:31:17 AM, Acrobat Distiller



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061805

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061805	0

6/16/2005	23	NE 9		20		Few Clouds	Unl	75	46	36	29.85
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/17/2005	0	NE 9		20		Few Clouds	Unl	73	46	38	29.85
6/17/2005	1	NE 9		15		Few Clouds	Unl	70	45	40	29.85
6/17/2005	2	N 6		15		Few Clouds	Unl	63	52	68	29.85
6/17/2005	3	N 0		15		Scattered Clouds	Unl	57	54	88	29.85
6/17/2005	10	NNE 17		20		Few Clouds	Unl	61	52	72	29.86
6/17/2005	11	N 14		20		Few Clouds	Unl	61	52	72	29.87
6/17/2005	12	N 14		20		Few Clouds	Unl	63	54	72	29.89
6/17/2005	13	N 12		20		Few Clouds	Unl	64	54	68	29.9
6/17/2005	14	N 12	21	20		Scattered Clouds	Unl	66	54	64	29.91
6/17/2005	15	NNW 12	21	20		Scattered Clouds	Unl	70	54	56	29.92
6/17/2005	16	N 14	23	20		Broken Clouds	7000	68	55	64	29.93
6/17/2005	17	NNE 14	25	20		Broken Clouds	7000	68	57	68	29.93
6/17/2005	18	NNE 14	23	20		Scattered Clouds	Unl	66	55	68	29.92
6/17/2005	19	NNE 14	23	20		Broken Clouds	5000	64	55	73	29.94
6/17/2005	20	N 12	23	15		Scattered Clouds	Unl	66	54	64	29.93
6/17/2005	21	NNE 14		15		Broken Clouds	9000	66	54	64	29.93
6/17/2005	23	N 12	23	12		Broken Clouds	5000	63	52	68	29.93
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/18/2005	0	N 14		12		Broken Clouds	5000	63	52	68	29.94
6/18/2005	1	N 14		12		Scattered Clouds	Unl	61	52	72	29.94
6/18/2005	2	NNW 12		10		Few Clouds	Unl	61	52	72	29.94
6/18/2005	3	NNW 12		10		Few Clouds	Unl	61	52	72	29.95
6/18/2005	10	N 0		15		Few Clouds	Unl	57	55	94	29.98
6/18/2005	11	N 0		15		Scattered Clouds	Unl	57	55	94	30
6/18/2005	12	N 0		15		Scattered Clouds	Unl	61	57	88	30.01
6/18/2005	13	N 12		15		Scattered Clouds	Unl	64	57	77	30.03
6/18/2005	14	N 12		15		Scattered Clouds	Unl	64	57	77	30.04
6/18/2005	15	N 12		15		Scattered Clouds	Unl	66	59	78	30.06
6/18/2005	16	N 14		12		Scattered Clouds	Unl	66	59	78	30.06
6/18/2005	17	NNE 14		12		Scattered Clouds	Unl	68	59	73	30.07
6/18/2005	18	NNE 9		12		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	19	NNE 12		12		Scattered Clouds	Unl	70	57	64	30.06
6/18/2005	20	NNE 14		15		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	21	N 14		15		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	22	NNE 12		15		Scattered Clouds	Unl	68	57	68	30.06
6/18/2005	23	NNE 12		15		Scattered Clouds	Unl	66	59	78	30.06
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/19/2005	0	NNE 9		15		Scattered Clouds	Unl	64	57	77	30.07
6/19/2005	1	NNE 9		15		Scattered Clouds	Unl	63	55	77	30.09
6/19/2005	2	NNE 9		15		Scattered Clouds	Unl	61	57	88	30.09
6/19/2005	3	NNE 9		15		Few Clouds	Unl	61	57	88	30.11
6/19/2005	10	N 0		15		Few Clouds	Unl	52	50	94	30.12
6/19/2005	11	N 0		15		Few Clouds	Unl	54	52	94	30.14
8/19/2005	12	N 0		15		Few Clouds	Unl	57	57	100	30.16
6/19/2005	13	N 0		12		Few Clouds	Unl	66	59	78	30.17
6/19/2005	14	N 0		10		Few Clouds	Unl	70	59	68	30.19
6/19/2005	15	N 5		10		Scattered Clouds	Unl	72	59	64	30.19
6/19/2005	16	N 9		10		Scattered Clouds	Unl	73	63	69	30.2
6/19/2005	17	N 7		10		Scattered Clouds	Unl	75	63	65	30.19
6/19/2005	18	N 9		10		Few Clouds	Unl	75	59	57	30.2
6/19/2005	19	N 9		12		Few Clouds	Unl	77	59	54	30.19
6/19/2005	20	NE 12		15		Few Clouds	Unl	77	57	50	30.17

Avg 64°

30.02

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Scotland and Ireland Golf...

Site: Indiana Harbor CDF
PN 030244
Date: 6 / 18 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	1/0c 061805					06:15	06:05	24	6L
TO-13	Sem.Vol 061805					06:30	06:30	24	1,070.2L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by: [illegible]

Activities performed on site: Installed Bottom Liner, Dredge Spoil
Weather conditions: Cloudy, NW wind, PM Cloudy
Analytical lab: STL
COC Number: EW-13124, EW-13125

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 07:06:48 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 07:06:48 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 07:06:48 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	07:11:48	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 09:15:25 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:15:25 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:15:25 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	09:20:25	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 11:15:46 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:15:46 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:15:46 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	11:20:46	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 13:33:21 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:33:21 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:33:21 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	13:38:21	0

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13124**

Project No.	Project Name
030244	Indiana Harbor Construction Remedial

Samplers/Affiliation: *(Print Name and Sign)* Ben Lahey / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: TO-15
VOC 061805	6-20-05	24hr.	Summa Canister	6 Liters	1	x
VOC 061905	6-20-05	24hr.	Summa Canister	6 Liters	1	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-20-05	0845	[signature]	6/20/05	8:45
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/28/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ-** 13125

Project No.: D30244

Project Name: Indiana Harbor Destruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lahey / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Semi-Vol 061805	6-20-05	24hr.	Filter	1,072.2L	2	x	x
Semi-Vol 061905	6-20-05	24hr.	Filter	1,054.4L	2	x	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-20-05	0845	[signature]	6/20/05	845
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/28/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061805

GC/MS Volatiles

Lot-Sample #...: G5F210168-004
Date Sampled...: 06/20/05
Prep Date.....: 06/27/05
Prep Batch #...: 5179538

Work Order #...: HD7111AA
Date Received..: 06/22/05
Analysis Date..: 06/27/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.065	0.020	ppb(v/v)
Toluene	0.43	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.20	0.040	ppb(v/v)
o-Xylene	0.071	0.020	ppb(v/v)
Benzene	0.30	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061805

GC/MS Semivolatiles

Lot-Sample #...: G5F210168-001 **Work Order #...:** HD2LP1AC **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/21/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/27/05
Prep Batch #...: 5175503
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**11000**	**500**	**ng**
Acenaphthylene	**1200**	**500**	**ng**
Anthracene	**630**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**1000**	**500**	**ng**
Fluorene	**12000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**13000**	**1000**	**ng**
Phenanthrene	**15000**	**500**	**ng**
Pyrene	**950**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	44	(25 - 150)
Acenaphthylene-d8	113	(25 - 150)
Acenaphthene-d10	78	(25 - 150)
Phenanthrene-d10	99	(25 - 150)
Benzo(a)pyrene-d12	98	(25 - 150)
Fluoranthene-d10	100	(25 - 150)
Pyrene-d10	95	(25 - 150)
Benzo(a)anthracene-d12	86	(25 - 150)
Chrysene-d12	68	(25 - 150)
Benzo(b)fluoranthene-d12	114	(25 - 150)
Benzo(k)fluoranthene-d12	99	(25 - 150)
Perylene-d12	89	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	100	(25 - 150)
Dibenz(ah)anthracene-d14	112	(25 - 150)
Benzo(ghi)perylene-d12	95	(25 - 150)
Fluorene d-10	122	(25 - 150)
13C6-Fluorene	24 *	(25 - 150)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061805

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-001 **Work Order #...:** HD2LP1AA **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/21/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/28/05
Prep Batch #...: 5175499
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**23000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**4800**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**30000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**16000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**16000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**1300 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	44	(25 - 150)
13C12-PCB 28	64	(25 - 150)
13C12-PCB 77	96	(25 - 150)
13C12-PCB 81	99	(25 - 150)
13C12-PCB 118	93	(25 - 150)
13C12-PCB 114	92	(25 - 150)
13C12-PCB 105	88	(25 - 150)
13C12-PCB 126	95	(25 - 150)
13C12-PCB 167	86	(25 - 150)
13C12-PCB 156	85	(25 - 150)
13C12-PCB 169	88	(25 - 150)
13C12-PCB 180	92	(25 - 150)
13C12-PCB 170	92	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	25	(25 - 150)
13C12-PCB 19	65	(25 - 150)
13C12-PCB 54	75	(25 - 150)
13C12-PCB 111	126	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061805

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-001 **Work Order #...:** HD2LP1AA **Matrix.....:** AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank coutains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
3	▪ Method Blank

Comments/Nonconformance

1 PCB8 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 PAH internal standard (identified as surrogate on the report) 13C6-Fluorene recovered (24%) below acceptable limits (25-150), results qualified as estimated.
3 PCB8 detected at 1500 pg in the method blank, sample results >10x blank concentration, no qualifications

PAH and PCB data for _06/18/05_

Jackie Dow — 6/31/05

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

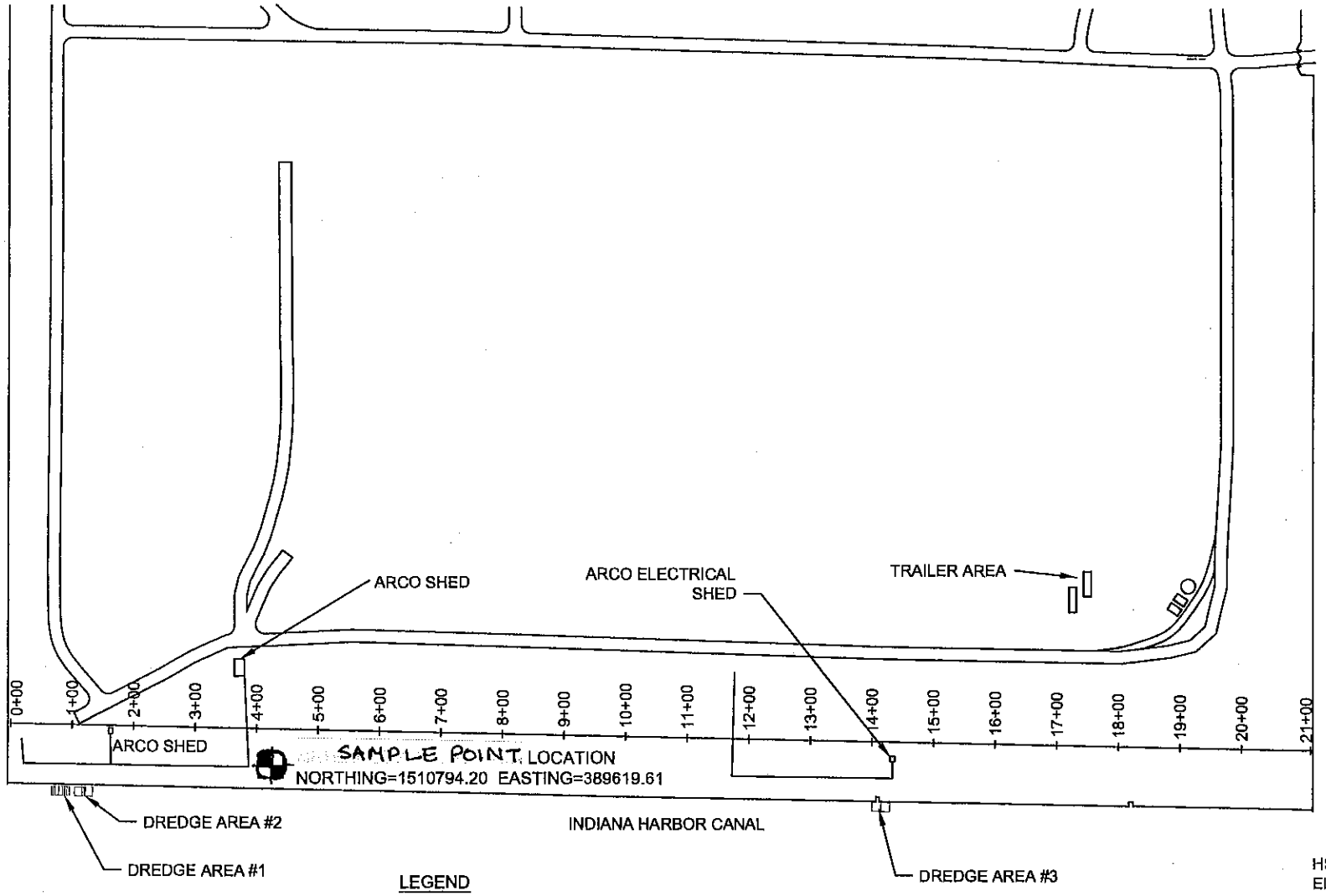
✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/18/05

Jackie Lan — 6/30/05

Reviewer **Date of Review**



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 061905

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 061905	0

O:\Tomo\INDIANA HARBOR AIR MONITOR\6-19-05.dwg, 7/7/2005 9:33:37 AM, Acrobat Distiller

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6-19-05

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Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

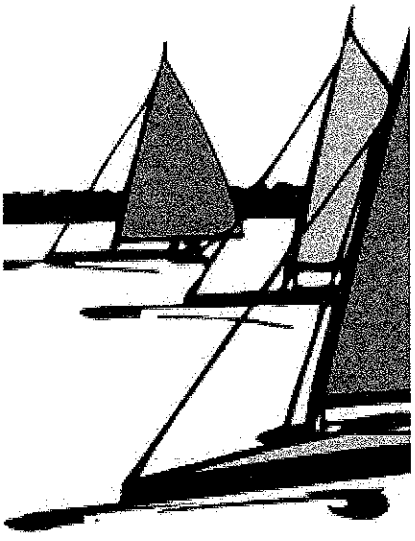
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy **52°F**	**52°F**	50°F	94%	Unlimited	30 12	calm
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **54°F**	**54°F**	52°F	94%	Unlimited	30 14 ↑	calm
6:45 AM	Partly Cloudy **57°F**	**57°F**	57°F	100%	Unlimited	30.16 ↑	calm
7:55 AM	Partly Cloudy **66°F**	**66°F**	59°F	78%	Unlimited	30 17 ↑	calm
8:50 AM	Partly Cloudy **70°F**	**70°F**	59°F	68%	10.0 miles	30.19 ↑	calm
9:50 AM	Partly Cloudy **72°F**	**72°F**	59°F	64%	10 0 miles	30 19 →	Variable 5mph
10:50 AM	Partly Cloudy **73°F**	**73°F**	63°F	69%	10 0 miles	30 20 ↑	From N 9mph
11:45 AM	Partly Cloudy **75°F**	**76°F**	63°F	65%	10.0 miles	30 19 ↓	Variable 7mph
12:50 PM	Partly Cloudy **75°F**	**76°F**	59°F	57%	10.0 miles	30.20 ↑	From N 9mph
1:50 PM	Partly Cloudy **77°F**	**77°F**	59°F	54%	Unlimited	30.19 ↓	From N 9mph
2:50 PM	Partly Cloudy **77°F**	**77°F**	57°F	50%	Unlimited	30 17 ↓	From NE 12mph
	Partly						

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-W
Race. http://team.abnamro.com

Sailing under one flag TEAM ABN AMRO

Special Offers in East Chica

3:50 PM	Cloudy **77°F**	**77°F**	57°F	50%	Unlimited	30.16 ↓	From NE 12mph
5:45 PM	Partly Cloudy **75°F**	**75°F**	55°F	50%	Unlimited	30.15 ↓	From NE 14mph
6:49 PM	Sunny **73°F**	**73°F**	55°F	53%	Unlimited	30.16 ↑	From NE 12mph
7:50 PM	Sunny **70°F**	**70°F**	55°F	60%	Unlimited	30.16 →	From ENE 14mph
Sunset at 8:27 PM							
8:50 PM	Clear **68°F**	**68°F**	57°F	68%	Unlimited	30.16 →	From ENE 14mph
9:45 PM	Clear **63°F**	**63°F**	57°F	82%	Unlimited	30.17 ↑	From ENE 12mph

Avg. 69° 30.17

Back to previous page

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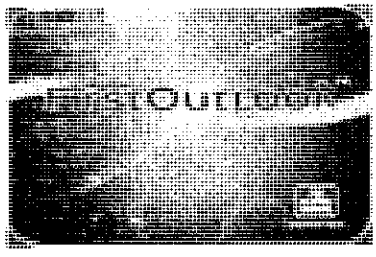

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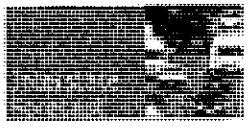

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Weather a

Site:	Indiana Harbor-CDF
PN	030244
Date:	6 / 19 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min. hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Vol 061905					06:18	06:15	24	6L
TO-13						06:18	06:15	24	1,054.4L
	Semi-Vol 061905					:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
Entries by: BDS	Calculations by: BDS					Checked by: Jackie			

Activities performed on site: None, Dredge Spoil in Pit

Weather conditions: Sunny, North wind

Analytical lab: STL

COC Number: EQ-13124, EQ-13125

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13124

Project No	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lobing / EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No of Containers	TESTS: TO-15
VOC 061805	6-20-05 (1990)	24hr.	Summa Canister	6 Liters	1	x
VOC 061905	6-20-05	24hr.	Summa Canister	6 Liters	1	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-20-05	0845	[signature]	6/20/05	8:45
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/28/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13125

Project No.	Project Name	Samplers/Affiliation: (Print Name and Sign)	Lab P.O. No.
730244	Indiana Harbor Destruction Removal	Ben Lahey / EQM	9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi-Vol 061805	6-20-05	24hr.	Filter	1,072.2L	2	X	X
Semi-Vol 061905	6-20-05	24hr.	Filter	1,054.4L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-20-05	0815	[signature]	6/20/05	845
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/28/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 061905

GC/MS Volatiles

Lot-Sample #...: G5F210168-005
Date Sampled...: 06/20/05
Prep Date.....: 06/27/05
Prep Batch #...: 5179538

Work Order #...: HD7181AA
Date Received..: 06/22/05
Analysis Date..: 06/27/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.12	0.020	ppb(v/v)
Toluene	0.90	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.43	0.040	ppb(v/v)
o-Xylene	0.14	0.020	ppb(v/v)
Benzene	0.60	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061905

GC/MS Semivolatiles

Lot-Sample #...: G5F210168-002 **Work Order #...:** HD2LT1AC **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/21/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/27/05
Prep Batch #...: 5175503
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**8600**	**500**	**ng**
Acenaphthylene	ND	500	ng
Anthracene	**2000**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	**590**	**500**	**ng**
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	**620**	**500**	**ng**
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**3500**	**500**	**ng**
Fluorene	**7500**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**34000**	**1000**	**ng**
Phenanthrene	**37000**	**500**	**ng**
Pyrene	**3000**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	44	(25 - 150)
Acenaphthylene-d8	79	(25 - 150)
Acenaphthene-d10	163 *	(25 - 150)
Phenanthrene-d10	95	(25 - 150)
Benzo(a)pyrene-d12	93	(25 - 150)
Fluoranthene-d10	100	(25 - 150)
Pyrene-d10	93	(25 - 150)
Benzo(a)anthracene-d12	89	(25 - 150)
Chrysene-d12	69	(25 - 150)
Benzo(b)fluoranthene-d12	107	(25 - 150)
Benzo(k)fluoranthene-d12	96	(25 - 150)
Perylene-d12	82	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	93	(25 - 150)
Dibenz(ah)anthracene-d14	104	(25 - 150)
Benzo(ghi)perylene-d12	87	(25 - 150)
Fluorene d-10	232 *	(25 - 150)
13C6-Fluorene	22 *	(25 - 150)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061905

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-002 **Work Order #...:** HD2LT1AA **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/21/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/28/05
Prep Batch #...: 5175499
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**46000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**12000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**90000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**46000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**51000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**4300 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	51	(25 - 150)
13C12-PCB 28	65	(25 - 150)
13C12-PCB 77	96	(25 - 150)
13C12-PCB 81	94	(25 - 150)
13C12-PCB 118	91	(25 - 150)
13C12-PCB 114	90	(25 - 150)
13C12-PCB 105	93	(25 - 150)
13C12-PCB 126	91	(25 - 150)
13C12-PCB 167	81	(25 - 150)
13C12-PCB 156	84	(25 - 150)
13C12-PCB 169	84	(25 - 150)
13C12-PCB 180	91	(25 - 150)
13C12-PCB 170	91	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	28	(25 - 150)
13C12-PCB 19	65	(25 - 150)
13C12-PCB 54	66	(25 - 150)
13C12-PCB 111	136	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 061905

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-002 **Work Order #...:** HD2LT1AA **Matrix.....:** AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
3	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 PAH internal standard (identified as surrogate on the report) Acenaphthene and Fluorene recovered above (163 & 232, respectively) and 13C6-Fluorene recovered below (22) acceptable limits (25-150), results qualified as estimated
3 PCB8 detected at 1500 pg in the method blank, sample results >10x blank concentration, no qualifications

PAH and PCB data for 06/19/05

Jackie Dan — 6/31/05

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/18/05

Jackie Dan
Reviewer

6/30/05
Date of Review

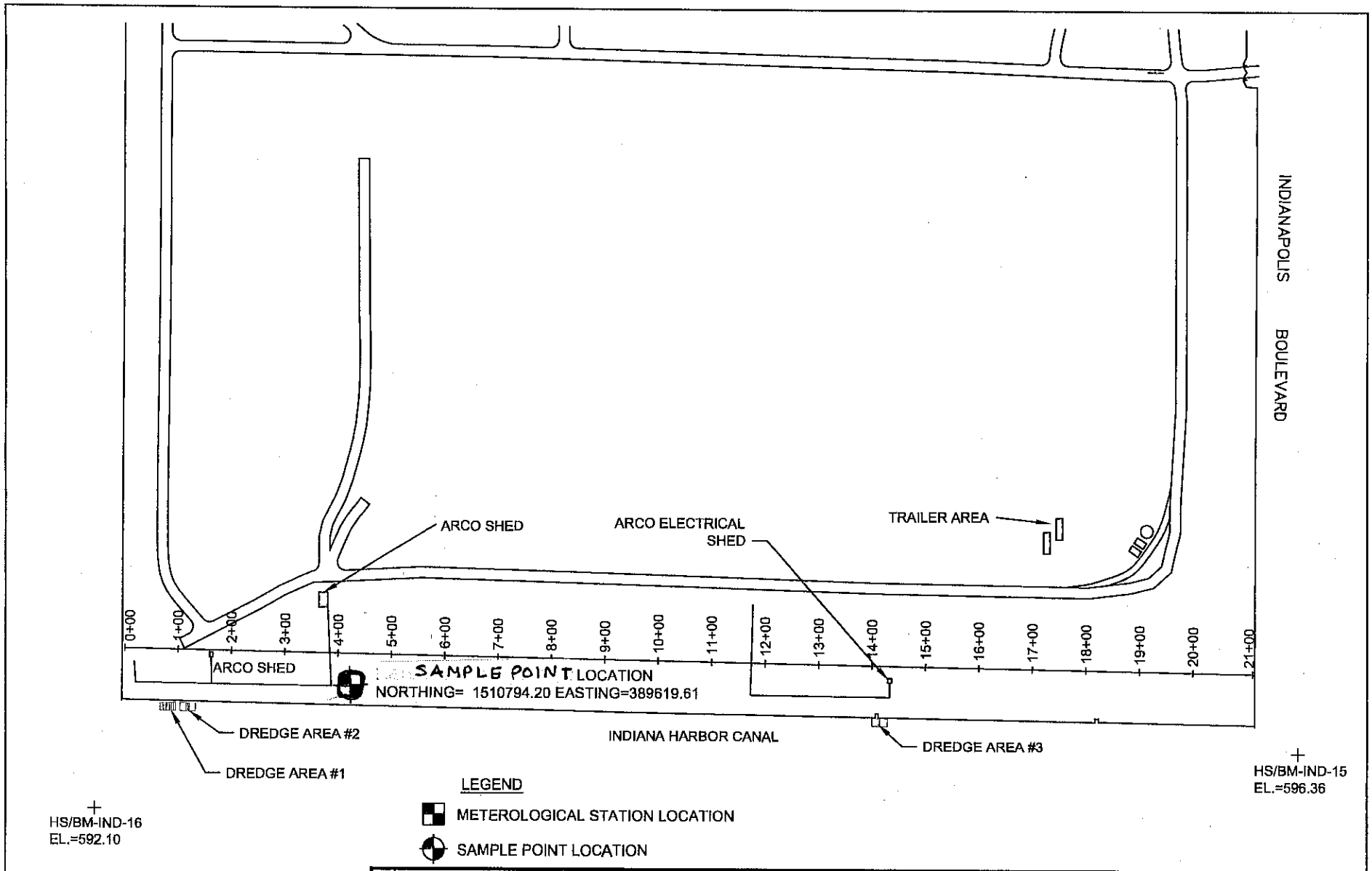
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Tardiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-20-05 0902	PDR	[illegible]	zero Calibration	"Cal. OK"	Sunny, lt wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Page ____ of ____



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062005

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062005	0

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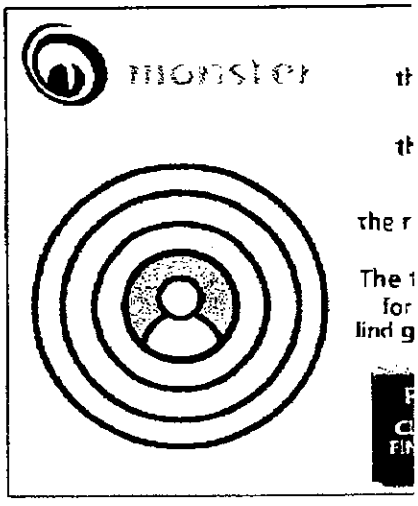
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy 55°F	55°F	54°F	94%	7.0 miles	30.18	calm
Sunrise at 5:15 AM							
5:55 AM	Partly Cloudy 55°F	55°F	54°F	94%	10.0 miles	30.19 ↑	calm
6:50 AM	Partly Cloudy 64°F	64°F	59°F	83%	10.0 miles	30.20 ↑	calm
7:45 AM	Sunny 70°F	70°F	61°F	73%	Unlimited	30.21 ↑	Variable 5mph
8:47 AM	Partly Cloudy 73°F	73°F	57°F	57%	10.0 miles	30.22 ↑	calm
9:50 AM	Partly Cloudy 75°F	75°F	57°F	53%	10.0 miles	30.21 ↓	calm
10:50 AM	Partly Cloudy 79°F	79°F	57°F	47%	10.0 miles	30.21 →	Variable 5mph
11:49 AM	Mostly Cloudy 81°F	81°F	59°F	48%	10.0 miles	30.22 ↑	From N 9mph
12:45 PM	Mostly Cloudy 81°F	81°F	57°F	45%	10.0 miles	30.20 ↓	From NE 12mph
1:50 PM	Mostly Cloudy 82°F	82°F	57°F	42%	10.0 miles	30.18 ↓	From NE 12mph
2:50 PM	Mostly Cloudy 82°F	82°F	57°F	42%	10.0 miles	30.14 ↓	Variable 6mph
3:50	Mostly						Variable



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Airline Secrets

PM	Cloudy 82°F	82°F	57°F	42%	Unlimited	30.11 ↓	7mph
4:50 PM	Mostly Cloudy 82°F	82°F	55°F	39%	Unlimited	30.10 ↓	Variable 7mph
5:50 PM	Partly Cloudy 81°F	80°F	55°F	42%	Unlimited	30.10 →	From NNE 12mph
6:50 PM	Partly Cloudy 79°F	78°F	55°F	44%	Unlimited	30.10 →	From NNE 9mph
7:55 PM	Partly Cloudy 79°F	79°F	57°F	47%	Unlimited	30.10 →	Variable 7mph
Sunset at 8:27 PM							
8:50 PM	Partly Cloudy 70°F	70°F	64°F	83%	Unlimited	30.11 ↑	Variable 7mph
9:50 PM	Partly Cloudy 66°F	66°F	59°F	78%	Unlimited	30.11 →	Variable 5mph

Avg. 74° 30.16

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Site:	Indiana Harbor
PN	030244
Date:	6 / 20 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOL 062005					6:20	6:15	24	6
TO-13	Semi Vol 062005					6:25	6:15	24	1.010L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Diving, off road rollOff boxes; road rollOffs area 3+2

Weather conditions: Sunny, NW → NE wind

Analytical lab: STL COC Number: ED-13126, ED-13127

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:10:55 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 7.124 mg/m³
Time at maximum: 09:15:08 Jun 20
Max STEL Concentration: 0.072 mg/m³
Time at max STEL: 09:15:25 Jun 20
Overall Avg Conc: 0.251 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	09:15:55	0.265

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:16:13 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.042 mg/m³
Time at maximum: 11:20:32 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:16:13 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	11:21:13	0.004

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:38:32 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.180 mg/m³
Time at maximum: 13:41:10 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:38:32 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	13:43:32	0.006

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:25:34 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:25:34 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:25:34 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	15:30:34	0.001

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-[illegible]

Project No	Project Name
03C 244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No. 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-15
Vac 062005	6-20-05	7AM	Sump Pump	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-21-05	0815	[illegible]	6/21	8AM
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site.

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/29/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers

Distribution White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13127

Project No: 030744

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-13/5270	TO-13/1668
Emi Vol 06.2005	6.2005	24hr	Filter	1,010 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-24-05	0845	[illegible]	6/24	0845
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/29/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062005

GC/MS Volatiles

Lot-Sample #...: G5F210168-006
Date Sampled...: 06/20/05
Prep Date.....: 06/27/05
Prep Batch #...: 5179538

Work Order #...: HD72A1AA
Date Received..: 06/22/05
Analysis Date..: 06/27/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.12	0.020	ppb(v/v)
Toluene	0.92	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.34	0.040	ppb(v/v)
o-Xylene	0.12	0.020	ppb(v/v)
Benzene	0.45	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062005

GC/MS Semivolatiles

Lot-Sample #...: G5F210168-003 **Work Order #...:** HD5GA1AC **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/27/05
Prep Batch #...: 5175503
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**12000**	**500**	**ng**
Acenaphthylene	**11000**	**500**	**ng**
Anthracene	**850**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**3600**	**500**	**ng**
Fluorene	**14000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**27000**	**1000**	**ng**
Phenanthrene	**29000**	**500**	**ng**
Pyrene	**2700**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	45	(25 - 150)
Acenaphthylene-d8	80	(25 - 150)
Acenaphthene-d10	68	(25 - 150)
Phenanthrene-d10	96	(25 - 150)
Benzo(a)pyrene-d12	88	(25 - 150)
Fluoranthene-d10	90	(25 - 150)
Pyrene-d10	88	(25 - 150)
Benzo(a)anthracene-d12	83	(25 - 150)
Chrysene-d12	65	(25 - 150)
Benzo(b)fluoranthene-d12	102	(25 - 150)
Benzo(k)fluoranthene-d12	75	(25 - 150)
Perylene-d12	79	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	83	(25 - 150)
Dibenz(ah)anthracene-d14	91	(25 - 150)
Benzo(ghi)perylene-d12	78	(25 - 150)
Fluorene d-10	111	(25 - 150)
13C6-Fluorene	83	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062005

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-003 **Work Order #...:** HD5GA1AA **Matrix.....:** AIR
Date Sampled...: 06/20/05 **Date Received..:** 06/22/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/28/05
Prep Batch #...: 5175499
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**58000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**13000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**110000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**46000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**59000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1900 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**4500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1200**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	62	(25 - 150)
13C12-PCB 28	72	(25 - 150)
13C12-PCB 77	100	(25 - 150)
13C12-PCB 81	102	(25 - 150)
13C12-PCB 118	98	(25 - 150)
13C12-PCB 114	96	(25 - 150)
13C12-PCB 105	90	(25 - 150)
13C12-PCB 126	87	(25 - 150)
13C12-PCB 167	88	(25 - 150)
13C12-PCB 156	90	(25 - 150)
13C12-PCB 169	94	(25 - 150)
13C12-PCB 180	102	(25 - 150)
13C12-PCB 170	98	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	54	(25 - 150)
13C12-PCB 19	76	(25 - 150)
13C12-PCB 54	85	(25 - 150)
13C12-PCB 111	140	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062005

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-003 Work Order #...: HD5GA1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

DUST CONTROL ACTIVITIES LOG

DUST CONTROL ACTIVITIES LOG

The following information must be recorded for each application of water or chemical solution to roadways, or application of physical or chemical control agents

1) The name and location of the roadway or area controlled: South East - West Road

2) Application date: 6/20/5

3) Date and time of each application: 6/20/5 Throughout Afternoon

4) Width of each application: 16 feet

5) Identification of each method of application: Water Truck with fire nozzle header.

6) Total quantity of water or chemical used for each application: 3000 Gallons per Load ~ Three Loads

7) The concentration and identity of the chemical or control agent: None

8) The material safety data sheets: NA

In the event control measures were not used, provide a statement of explanation:

Form completed by: [signature] Date: 6/21/5

DUST CONTROL ACTIVITIES LOG

DUST CONTROL ACTIVITIES LOG

The following information must be recorded for each application of water or chemical solution to roadways, or application of physical or chemical control agents

1) The name and location of the roadway or area controlled: South East - West Road.

2) Application date: 6/21/5

3) Date and time of each application: 6/21/5 8-10 Am

4) Width of each application: 16 feet

5) Identification of each method of application: Water Truck with fire nozzle heads

6) Total quantity of water or chemical used for each application: 3000 Gallons per Load - Three Loads

7) The concentration and identity of the chemical or control agent: None

8) The material safety data sheets: NA

In the event control measures were not used, provide a statement of explanation:

Form completed by: [signature] Date: 6/21/5

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 PCB8 detected at 1500 pg in the method blank, sample results >10x blank concentration, no qualifications

PAH and PCB data for 06/20/05

Reviewer

6/31/05
Date of Review

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/20/05	

Jackie Dow — 6/30/05

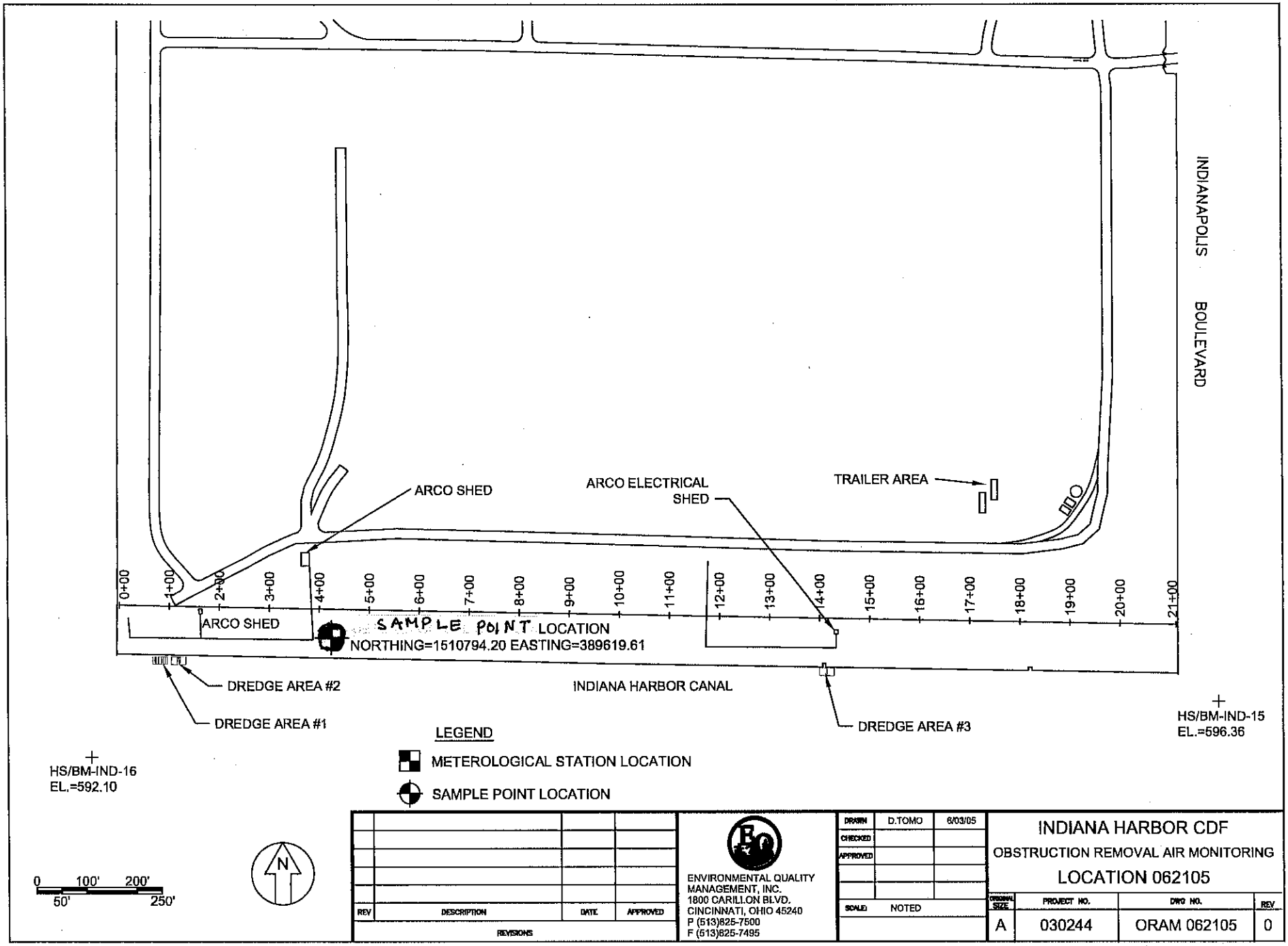
Reviewer — **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
06-24-05 0828	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, WEST WIND (light), Hot, Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)625-7500
F (513)625-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062105

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062105	0

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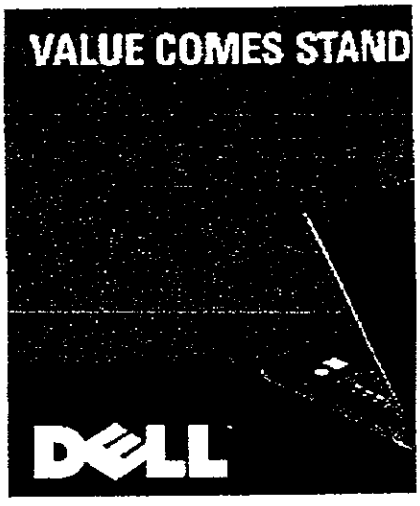
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **66°F**	**66°F**	59°F	73%	10.0 miles	30.05	Variable 5mph
	Sunrise at 5:16 AM						
5:50 AM	Mostly Cloudy **70°F**	**70°F**	59°F	68%	Unlimited	30.06	Variable 5mph
6:50 AM	Mostly Cloudy **70°F**	**70°F**	61°F	73%	Unlimited	30.06	Variable 5mph
7:50 AM	Partly Cloudy **75°F**	**76°F**	63°F	65%	Unlimited	30.06	From W 9mph
8:50 AM	Partly Cloudy **81°F**	**82°F**	63°F	54%	Unlimited	30.06	From W 12mph
9:45 AM	Partly Cloudy **81°F**	**81°F**	61°F	51%	Unlimited	30.05	From W 12mph
10:45 AM	Mostly Cloudy **84°F**	**85°F**	63°F	48%	10.0 miles	30.05	From W 9mph
11:50 AM	Mostly Cloudy **88°F**	**89°F**	64°F	46%	10.0 miles	30.04	From W 9mph
12:50 PM	Mostly Cloudy **91°F**	**94°F**	64°F	41%	10.0 miles	30.03	From W 12mph
1:55 PM	Mostly Cloudy **82°F**	**84°F**	64°F	54%	10.0 miles	30.02	From NNE 12mph
2:45 PM	Mostly Cloudy **82°F**	**85°F**	66°F	58%	10.0 miles	30.02	From NE 14mph
	Partly						



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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3:50 PM	Cloudy 79°F	80°F	64°F	61%	Unlimited	30.03	From NNE 9mph
4:50 PM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.03	From NNE 9mph
5:50 PM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.04	From NNE 14mph
6:50 PM	Mostly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.04	From NNE 12mph
7:50 PM	Mostly Cloudy 73°F	73°F	66°F	78%	Unlimited	30.04	From NNE 12mph
Sunset at 8:27 PM							
8:50 PM	Mostly Cloudy 70°F	70°F	66°F	88%	Unlimited	30.06	From NNE 8mph
9:50 PM	Mostly Cloudy 66°F	66°F	63°F	88%	Unlimited	30.06	Variable 7mph

Avg. 77° 30.04

Back to previous page

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3x3 = 9
2x2 = 4

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Site: Indiana Harbor CDF
PN 030244
Date: 6 / 21 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TD-15	Vol 062105					06:25	06:20	24	6L
TD-13	Semi Vol 062105					06:25	06:20	24	1,005.4 L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: DREDGING, LOADING ROLL OF BOXES
Weather conditions: Sunny, hot, humid, variable lt. wind
Analytical lab: STL
COC Number: EQ-13128, EQ-13129

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:53:52 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 2.057 mg/m³
Time at maximum: 09:54:25 Jun 21
Max STEL Concentration: 0.022 mg/m³
Time at max STEL: 09:54:22 Jun 21
Overall Avg Conc: 0.039 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	09:58:52	0.069

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:48:19 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.069 mg/m³
Time at maximum: 11:53:10 Jun 21
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:48:19 Jun 21
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	11:53:19	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:12:53 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.504 mg/m³
Time at maximum: 14:13:14 Jun 21
Max STEL Concentration: 0.015 mg/m³
Time at max STEL: 14:17:53 Jun 21
Overall Avg Conc: 0.041 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	14:17:53	0.044

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:44:38 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.104 mg/m³
Time at maximum: 15:46:30 Jun 21
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 15:46:38 Jun 21
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	15:49:38	0.011

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13120

Project No.	Project Name
03E 244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lehany [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TD-15
Vac 06-21-05	6-21-05	2Hr	Sediment	Cal	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6/22/05	820	[illegible]	6/22/05	820
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STI - Pick up on site

Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 6-30-05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- [illegible]

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TCL3/8270	TCL3/1668
Composite 062105	6-21-05	24 hr.	Filter	1,005.46	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[illegible]	6-22-05	0830	[illegible]	6/22/05	830	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 6-30-05	Report To: Tekin Dolin	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062105

GC/MS Volatiles

Lot-Sample #...: G5F210168-007
Date Sampled...: 06/21/05
Prep Date.....: 06/27/05
Prep Batch #...: 5179538

Work Order #...: HD8J01AA
Date Received..: 06/23/05
Analysis Date..: 06/27/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.096	0.020	ppb(v/v)
Toluene	0.66	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.27	0.040	ppb(v/v)
o-Xylene	0.095	0.020	ppb(v/v)
Benzene	0.38	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: semi-vol 062105

GC/MS Semivolatiles

Lot-Sample #...: G5F210168-008 **Work Order #...:** HD8J51AC **Matrix.....:** AIR
Date Sampled...: 06/21/05 **Date Received..:** 06/23/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/27/05
Prep Batch #...: 5175503
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**9100**	**500**	**ng**
Acenaphthylene	**1100**	**500**	**ng**
Anthracene	**550**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**3200**	**500**	**ng**
Fluorene	**8600**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**20000**	**1000**	**ng**
Phenanthrene	**20000**	**500**	**ng**
Pyrene	**2100**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	69	(25 - 150)
Acenaphthylene-d8	110	(25 - 150)
Acenaphthene-d10	96	(25 - 150)
Phenanthrene-d10	99	(25 - 150)
Benzo(a)pyrene-d12	89	(25 - 150)
Fluoranthene-d10	94	(25 - 150)
Pyrene-d10	89	(25 - 150)
Benzo(a)anthracene-d12	84	(25 - 150)
Chrysene-d12	67	(25 - 150)
Benzo(b)fluoranthene-d12	101	(25 - 150)
Benzo(k)fluoranthene-d12	98	(25 - 150)
Perylene-d12	80	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	84	(25 - 150)
Dibenz(ah)anthracene-d14	95	(25 - 150)
Benzo(ghi)perylene-d12	81	(25 - 150)
Fluorene d-10	106	(25 - 150)
13C6-Fluorene	49	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: semi-vol 062105

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-008 **Work Order #...:** HD8J51AA **Matrix.....:** AIR
Date Sampled...: 06/21/05 **Date Received..:** 06/23/05
Prep Date.....: 06/23/05 **Analysis Date..:** 06/28/05
Prep Batch #...: 5175499
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**31000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**6800**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**48000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**22000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**28000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1200 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**2800 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	58	(25 - 150)
13C12-PCB 28	73	(25 - 150)
13C12-PCB 77	100	(25 - 150)
13C12-PCB 81	98	(25 - 150)
13C12-PCB 118	92	(25 - 150)
13C12-PCB 114	95	(25 - 150)
13C12-PCB 105	93	(25 - 150)
13C12-PCB 126	97	(25 - 150)
13C12-PCB 167	84	(25 - 150)
13C12-PCB 156	86	(25 - 150)
13C12-PCB 169	90	(25 - 150)
13C12-PCB 180	95	(25 - 150)
13C12-PCB 170	91	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	50	(25 - 150)
13C12-PCB 19	68	(25 - 150)
13C12-PCB 54	82	(25 - 150)
13C12-PCB 111	132	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: semi-vol 062105

Trace Level Organic Compounds

Lot-Sample #...: G5F210168-008 Work Order #...: HD8J51AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated

2 PCB8 detected at 1500 pg in the method blank, sample results >10x blank concentration, no qualifications

PAH and PCB data for _06/21/05_

Jackie D

Reviewer

6/31/05

Date of Review

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/21/05

Jackie Dion — 6/30/05

Reviewer — **Date of Review**

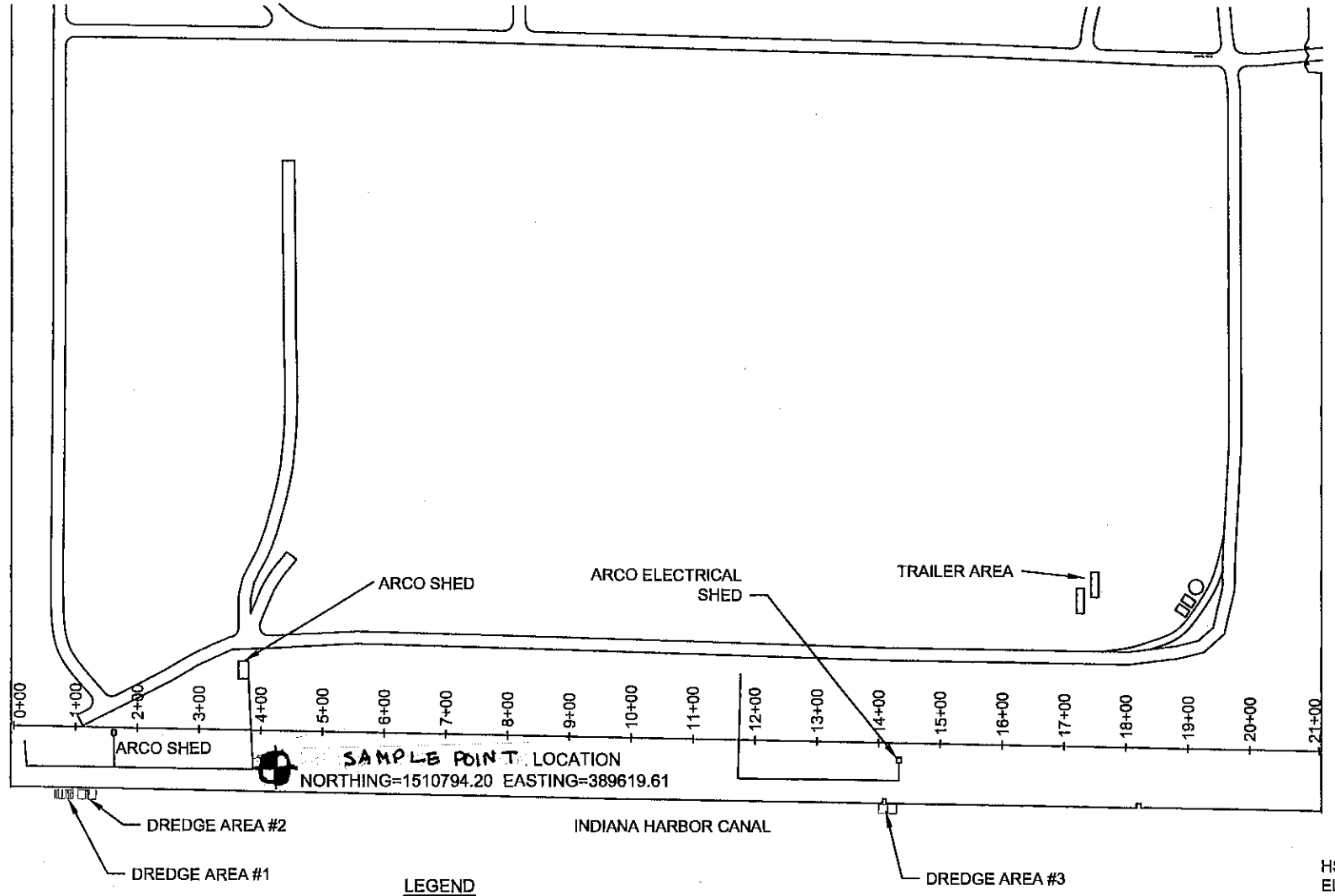
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
06/22/05 0610	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Hot, Humid Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062205

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062205	0

O:\Tomo\INDIANA HARBOR AIR MONITOR\6-22-05.dwg, 7/7/2005 9:35:25 AM, Acrobat Distiller

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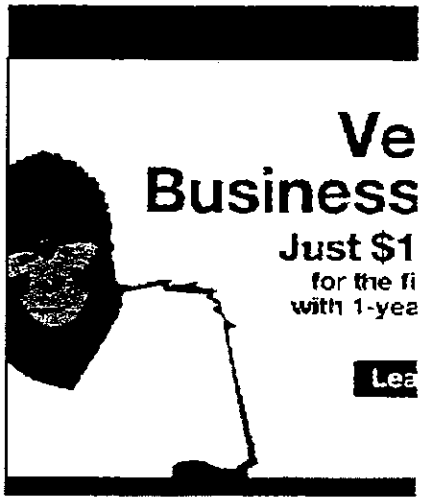
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:49 AM	Partly Cloudy 68°F	68°F	61°F	78%	Unlimited	30.10	From N 9mph
Sunrise at 5:16 AM							
5:50 AM	Partly Cloudy 68°F	68°F	61°F	78%	Unlimited	30.12 ↑	From N 9mph
6:50 AM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.14 ↑	From N 9mph
7:45 AM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.14 →	From N 9mph
8:50 AM	Partly Cloudy 73°F	73°F	55°F	53%	Unlimited	30.16 ↑	From NNE 9mph
9:55 AM	Partly Cloudy 73°F	73°F	57°F	57%	Unlimited	30.17 ↑	From NNE 9mph
10:50 AM	Sunny 75°F	75°F	54°F	47%	Unlimited	30.19 ↑	From NNE 12mph
11:50 AM	Sunny 75°F	74°F	45°F	34%	Unlimited	30.19 →	From NNE 12mph
12:50 PM	Sunny 75°F	75°F	55°F	50%	Unlimited	30.18 ↓	From NNE 9mph
1:51 PM	Sunny 75°F	75°F	52°F	44%	Unlimited	30.16	From NNE 14mph
2:50 PM	Sunny 75°F	75°F	55°F	50%	Unlimited	30.15 ↓	From NNE 12mph
3:50 PM	Sunny 79°F	78°F	48°F	34%	Unlimited	30.14 ↓	From N 9mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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Wedding photography

4:50 PM	Sunny 79°F	79°F	57°F	47%	Unlimited	30.12 ↓	From N 7mph
5:50 PM	Sunny 73°F	73°F	57°F	57%	Unlimited	30.11 ↓	Variable 7mph
6:45 PM	Sunny 73°F	73°F	57°F	57%	Unlimited	30.11 →	Variable 7mph
7:50 PM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.11 →	Variable 7mph
Sunset at 8:27 PM							
8:45 PM	Partly Cloudy 63°F	63°F	57°F	82%	Unlimited	30.11 →	Variable 5mph
10:00 PM	Partly Cloudy 63°F	63°F	59°F	88%	Unlimited	30.12 ↑	Variable 5mph

Avg. 72° 30.14

Back to previous page

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Site: Indiana Harbor Obstruction Removal
PN 030244
Date: 6 / 23 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration ~~min~~ hr	Air Volume, liters
TO-15	Vol 062205					06:25	06:25	24hr	6
TO-13	Semi Vol 062205					06:25	06:25	24hr.	1,056.7
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: Jackie Dr

Activities performed on site: Dredging, Diving
Weather conditions: Sunny Moderate wind, Hot Humid
Analytical lab: STL
COC Number: ECO-13130, ECO-13131

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:35:08 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.264 mg/m³
Time at maximum: 09:35:12 Jun 22
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 09:35:38 Jun 22
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	09:40:08	0.01

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:33:44 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.258 mg/m³
Time at maximum: 11:33:52 Jun 22
Max STEL Concentration: 0.007 mg/m³
Time at max STEL: 11:38:44 Jun 22
Overall Avg Conc: 0.025 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	11:38:44	0.038

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:09:55 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.079 mg/m³
Time at maximum: 13:11:12 Jun 22
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:09:55 Jun 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	13:14:55	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:22:26 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.165 mg/m³
Time at maximum: 15:23:28 Jun 22
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 15:24:26 Jun 22
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	15:27:26	0.016

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-

Project No	Project Name
035244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-15
VOC 062205	6-22-05	2400	Sub Canister	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-23-05	8:10	[illegible]	6/23/05	8:10
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up On Site

Airbill Number

Reporting/QA Requirements

Turn Around Time (EXACT DUE DATE): 6/30/05

Report To: JAKIE DOAN

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13131

Project No: 0302-41

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: Fe-13 / 8270	TESTS: Fe-13 / 1668
Sani-Vol 062205	6-22-05	2110	Filter	1,056.7 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-22-05	840	[illegible]	6/23/05	840
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/30/05

Report To: Jackie Dann

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062205

GC/MS Volatiles

Lot-Sample #...: G5F240220-001
Date Sampled...: 06/22/05
Prep Date.....: 06/27/05
Prep Batch #...: 5179538

Work Order #...: HECHF1AC
Date Received..: 06/24/05
Analysis Date..: 06/27/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.11	0.020	ppb(v/v)
Toluene	0.73	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.34	0.040	ppb(v/v)
o-Xylene	0.12	0.020	ppb(v/v)
Benzene	0.52	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062205

GC/MS Semivolatiles

Lot-Sample #...: G5F240220-002 **Work Order #...:** HECHQ1AC **Matrix.....:** AIR
Date Sampled...: 06/22/05 **Date Received..:** 06/24/05
Prep Date.....: 06/27/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5179377
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**12000**	**500**	**ng**
Acenaphthylene	**2100**	**500**	**ng**
Anthracene	**1200**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	**540**	**500**	**ng**
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**2700**	**500**	**ng**
Fluorene	**13000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**26000**	**1000**	**ng**
Phenanthrene	**25000**	**500**	**ng**
Pyrene	**2700**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	68	(25 - 150)
Acenaphthylene-d8	108	(25 - 150)
Acenaphthene-d10	92	(25 - 150)
Phenanthrene-d10	113	(25 - 150)
Benzo(a)pyrene-d12	89	(25 - 150)
Fluoranthene-d10	93	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	71	(25 - 150)
Chrysene-d12	62	(25 - 150)
Benzo(b)fluoranthene-d12	90	(25 - 150)
Benzo(k)fluoranthene-d12	112	(25 - 150)
Perylene-d12	76	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	82	(25 - 150)
Dibenz(ah)anthracene-d14	95	(25 - 150)
Benzo(ghi)perylene-d12	75	(25 - 150)
Fluorene d-10	146	(25 - 150)
13C6-Fluorene	38	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062205

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-002 Work Order #...: HECHQ1AA Matrix.....: AIR
Date Sampled...: 06/22/05 Date Received..: 06/24/05
Prep Date.....: 06/27/05 Analysis Date..: 06/30/05
Prep Batch #...: 5179379

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**45000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**8900**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**71000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**30000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**49000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**2200 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	43	(25 - 150)
13C12-PCB 28	61	(25 - 150)
13C12-PCB 77	88	(25 - 150)
13C12-PCB 81	88	(25 - 150)
13C12-PCB 118	91	(25 - 150)
13C12-PCB 114	93	(25 - 150)
13C12-PCB 105	92	(25 - 150)
13C12-PCB 126	100	(25 - 150)
13C12-PCB 167	77	(25 - 150)
13C12-PCB 156	80	(25 - 150)
13C12-PCB 169	81	(25 - 150)
13C12-PCB 180	82	(25 - 150)
13C12-PCB 170	80	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	47	(25 - 150)
13C12-PCB 19	69	(25 - 150)
13C12-PCB 54	70	(25 - 150)
13C12-PCB 111	132	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062205

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-002 Work Order #...: HECHQ1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
2	▪ Laboratory Control Sample
3	▪ Method Blank

Comments/Nonconformance

1 PCB8 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (166) acceptable limits (25-150) for the laboratory control sample, associated results not qualified
3 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (167) acceptable limits (25-150), for the method blank associated results not qualified

PAH and PCB data for _06/22/05_

Jackie Dw — 7/6/05

Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/22/05	

Jackie Dow — 7/5/05

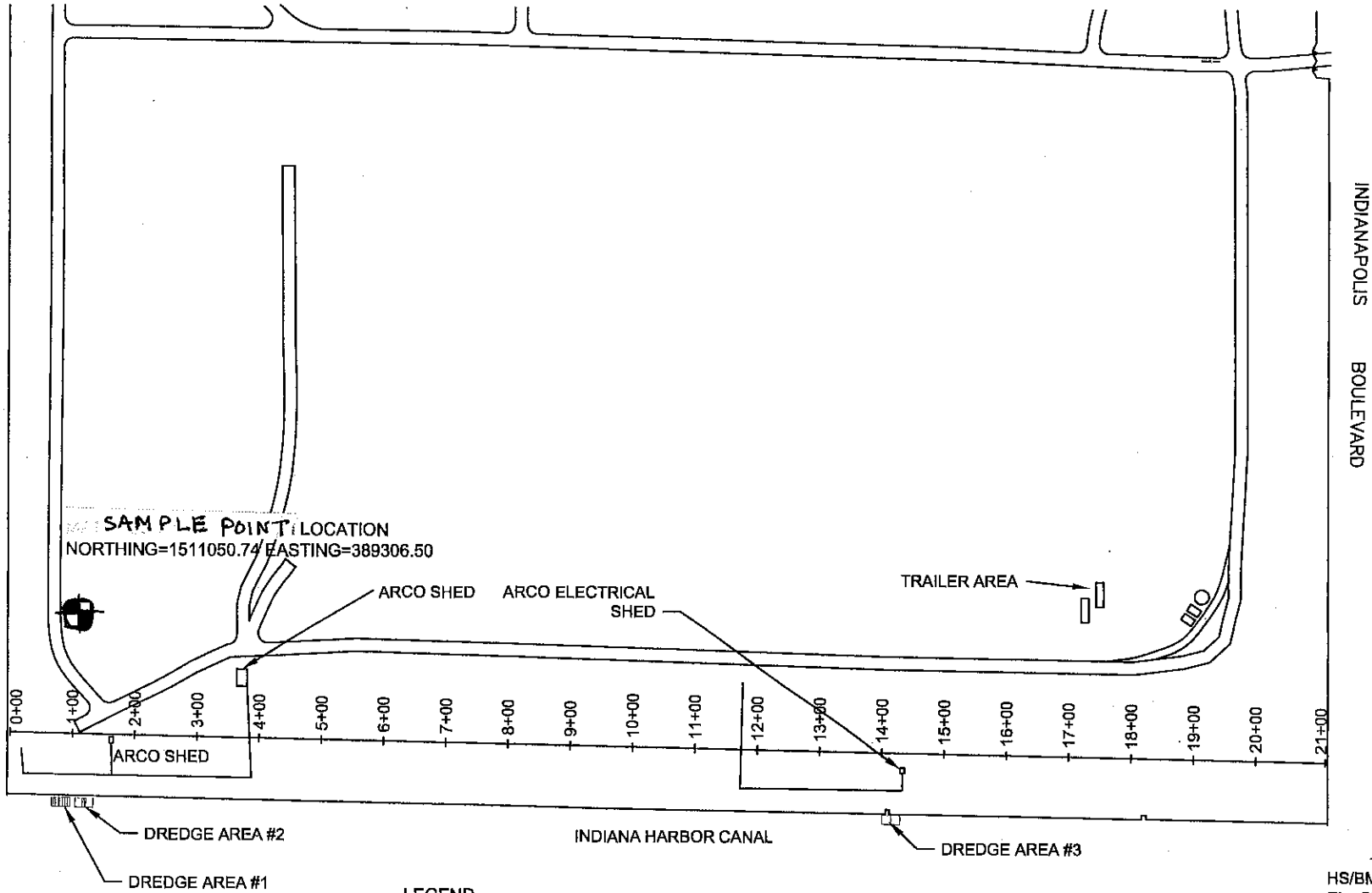
Reviewer **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-23-05 0813	PDR	[signature]	ZERO Calibration	"Cal OK"	Sunny - S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062305

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062305	0

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy 66°F	66°F	57°F	73%	Unlimited	30.09	From SSE 8mph
	Sunrise at 5:16 AM						
5:50 AM	Mostly Cloudy 66°F	66°F	55°F	68%	Unlimited	30.10	From SSE 12mph
6:50 AM	Partly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.10	From SSE 12mph
7:50 AM	Partly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.09	From SSE 14mph
8:50 AM	Partly Cloudy 75°F	76°F	59°F	57%	Unlimited	30.09	From S 14mph
9:50 AM	Partly Cloudy 81°F	81°F	57°F	45%	Unlimited	30.09	From S 12mph
10:50 AM	Cloudy 84°F	84°F	59°F	42%	Unlimited	30.08	From SSE 9mph
11:50 AM	Mostly Cloudy 88°F	88°F	61°F	40%	Unlimited	30.06	From SSE 14mph
12:50 PM	Mostly Cloudy 91°F	93°F	63°F	38%	Unlimited	30.05	From S 9mph
1:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	30.02	From S 9mph
2:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	Unlimited	30.01	From S 14mph
3:50	Partly						From S

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- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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PM	Cloudy 91°F	95°F	66°F	43%	10.0 miles	29.99 ↓	12mph
4:45 PM	Partly Cloudy 91°F	95°F	66°F	43%	10.0 miles	29.97 ↓	From SSW 12mph
5:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	10.0 miles	29.96 ↓	From S 9mph
7:55 PM	Partly Cloudy 91°F	98°F	72°F	52%	10.0 miles	29.95 →	From S 7mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 86°F	89°F	68°F	55%	10.0 miles	29.95 →	From SSE 7mph
9:50 PM	Partly Cloudy 84°F	87°F	68°F	58%	10.0 miles	29.97 ↑	From SSE 9mph

Avg. 83° 30.03

Back to previous page

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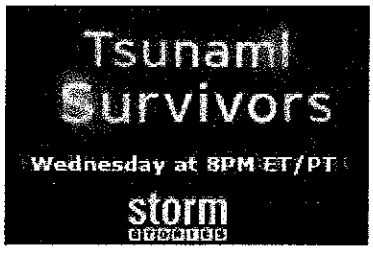

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12 PM | Weather Center

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Weather a

SAMPLING DATA SHEET

Site:
PN 030244
Date: 6 / 23 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	VOC062305					07:20	06:45	23.5	6 L
TO-13 Silica	VOC062305					07:20	06:45	23.5	1,001.7 L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: Remove timbers, Dredge, Wash spoil; Demobilize
Weather conditions: Sunny Hot Humid, SSW wind
Analytical lab: STL
COC Number: CU-13132, EQ 13133

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:31:59 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.114 mg/m³
Time at maximum: 09:36:05 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:31:59 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	09:36:59	0.005

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:03:44 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.011 mg/m³
Time at maximum: 11:09:39 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:03:44 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	11:08:44	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:07:22 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.233 mg/m³
Time at maximum: 13:13:35 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:07:22 Jun 23
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	13:12:22	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:12:40 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.286 mg/m³
Time at maximum: 15:12:41 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:12:40 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	15:17:40	0.01

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13132**

Project No.	Project Name
030244	Indiana Harbor Construction Element

Samplers/Affiliation: *(Print Name and Sign)* [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: TO-15
VOC 062305	6-23-05	23.5hr	Sub-Slab Gas	6L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	6-24-05	8:30	[illegible]	6/24	8:30
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 7/5/05

Report To: Tackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13133

Project No.	Project Name	
D30 244	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: *(Print Name and Sign)* Ben Lehany / Ben Fellers / EQM		Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi-Vol 060705	6/28/05	7:55	Filter	1,001.7 L	2	x	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Fellers	6/24/05	8:50	[signature]	6/24/05	8:50
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 7/5/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062305

GC/MS Volatiles

Lot-Sample #...: G5F240220-005
Date Sampled...: 06/23/05
Prep Date.....: 06/28/05
Prep Batch #...: 5180576

Work Order #...: HEFQN1AA
Date Received..: 06/24/05
Analysis Date..: 06/28/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.055	0.020	ppb(v/v)
Toluene	0.43	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.18	0.040	ppb(v/v)
o-Xylene	0.065	0.020	ppb(v/v)
Benzene	0.21	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062305

GC/MS Semivolatiles

Lot-Sample #...: G5F240220-003 **Work Order #...:** HEEAV1AC **Matrix.....:** AIR
Date Sampled...: 06/23/05 **Date Received..:** 06/25/05
Prep Date.....: 06/27/05 **Analysis Date..:** 07/02/05
Prep Batch #...: 5179377
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**17000**	**500**	**ng**
Acenaphthylene	**1800**	**500**	**ng**
Anthracene	**1000**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**7500**	**500**	**ng**
Fluorene	**13000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**20000**	**1000**	**ng**
Phenanthrene	**40000**	**500**	**ng**
Pyrene	**4100**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	47	(25 - 150)
Acenaphthylene-d8	82	(25 - 150)
Acenaphthene-d10	73	(25 - 150)
Phenanthrene-d10	95	(25 - 150)
Benzo(a)pyrene-d12	83	(25 - 150)
Fluoranthene-d10	85	(25 - 150)
Pyrene-d10	86	(25 - 150)
Benzo(a)anthracene-d12	85	(25 - 150)
Chrysene-d12	68	(25 - 150)
Benzo(b)fluoranthene-d12	110	(25 - 150)
Benzo(k)fluoranthene-d12	88	(25 - 150)
Perylene-d12	71	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	67	(25 - 150)
Dibenz(ah)anthracene-d14	75	(25 - 150)
Benzo(ghi)perylene-d12	61	(25 - 150)
Fluorene d-10	105	(25 - 150)
13C6-Fluorene	48	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062305

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-003 Work Order #...: HEEAV1AA Matrix.....: AIR
Date Sampled...: 06/23/05 Date Received..: 06/25/05
Prep Date.....: 06/27/05 Analysis Date..: 06/30/05
Prep Batch #...: 5179379

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**22000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**7900**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**69000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**44000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**47000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**3300 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	47	(25 - 150)
13C12-PCB 28	70	(25 - 150)
13C12-PCB 77	96	(25 - 150)
13C12-PCB 81	98	(25 - 150)
13C12-PCB 118	108	(25 - 150)
13C12-PCB 114	108	(25 - 150)
13C12-PCB 105	109	(25 - 150)
13C12-PCB 126	120	(25 - 150)
13C12-PCB 167	85	(25 - 150)
13C12-PCB 156	86	(25 - 150)
13C12-PCB 169	86	(25 - 150)
13C12-PCB 180	92	(25 - 150)
13C12-PCB 170	89	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	37	(25 - 150)
13C12-PCB 19	38	(25 - 150)
13C12-PCB 54	47	(25 - 150)
13C12-PCB 111	122	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062305

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-003 Work Order #...: HEEAV1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
2	▪ Laboratory Control Sample
3	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (166) acceptable limits (25-150) for the laboratory control sample, associated results not qualified
3 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (167) acceptable limits (25-150), for the method blank associated results not qualified

PAH and PCB data for _06/23/05_

Jackie Dow — 7/6/05

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/23/05

Jackie Dow
Reviewer

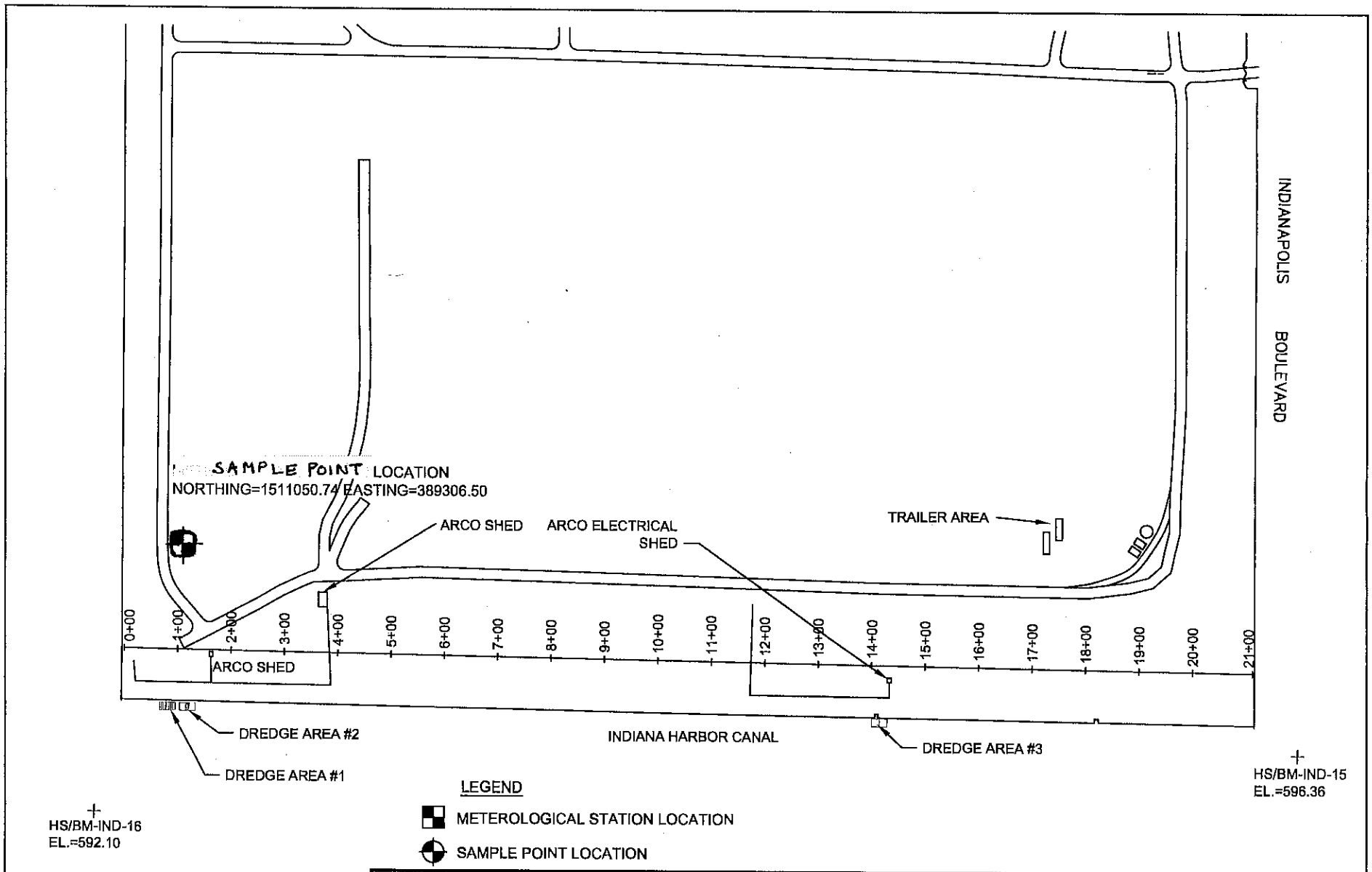
7/5/05
Date of Review

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-24-05 0812	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny 95+°, Humid S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062405

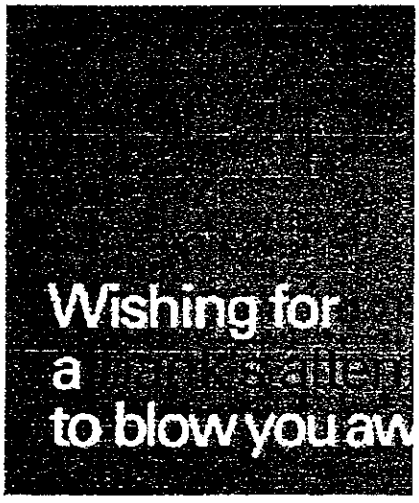
DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062405	0

6-24-05

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Clear 79°F	82°F	70°F	74%	7.0 miles	29.99	From SSW 9mph
Sunrise at 5:17 AM							
5:55 AM	Sunny 79°F	82°F	70°F	74%	7.0 miles	29.99 →	From SSW 14mph
6:50 AM	Haze 79°F	82°F	70°F	74%	6.0 miles	30.00 ↑	From SSW 12mph
7:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	30.01 ↑	From SW 14mph
8:50 AM	Sunny 82°F	87°F	72°F	70%	7.0 miles	30.01 →	From SW 14mph
9:50 AM	Sunny 88°F	95°F	73°F	62%	7.0 miles	29.99 ↓	From SSW 12mph
10:48 AM	Partly Cloudy 91°F	100°F	73°F	55%	10.0 miles	30.00 ↑	From WSW 12mph
11:50 AM	Partly Cloudy 93°F	100°F	70°F	46%	10.0 miles	29.99 ↓	From WSW 12mph
12:15 PM	Partly Cloudy 95°F	99°F	66°F	39%	10.0 miles	29.97 ↓	From WSW 12mph
1:50 PM	Partly Cloudy 95°F	99°F	66°F	39%	10.0 miles	29.96 ↓	From WSW 12mph
2:50 PM	Partly Cloudy 95°F	96°F	61°F	32%	10.0 miles	29.95 ↓	From WSW 12mph
3:55 PM	Partly Cloudy 97°F	98°F	61°F	30%	10.0 miles	29.94 ↓	From WSW 12mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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4:50 PM	Partly Cloudy 97°F	98°F	61°F	30%	10.0 miles	29.94 →	From WSW 12mph
5:50 PM	Partly Cloudy 95°F	96°F	59°F	30%	10.0 miles	29.93 ↓	From SW 12mph
6:50 PM	Sunny 95°F	95°F	57°F	28%	10.0 miles	29.94 ↑	From SW 14mph
7:55 PM	Sunny 91°F	91°F	57°F	31%	10.0 miles	29.95 ↑	From SW 12mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 90°F	90°F	61°F	38%	10.0 miles	29.96 ↑	From SSW 9mph
9:50 PM	Partly Cloudy 88°F	89°F	63°F	43%	10.0 miles	29.99 ↑	From SW 9mph

Avg. 84° 29.97

Back to previous page

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This Week's Features

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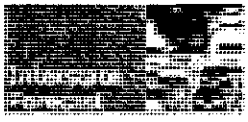
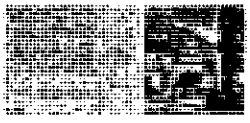


Check curr
conditions

Summer Adventure



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Site: Indiana Harbor Obstruction
PN 030244
Date: 6/24/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	VAC062405					06:45	06:25	24	6
TO-13	Semi-Vol 062405					06:45	06:25	24	1,809.2L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by: [signature]

Activities performed on site: Turning dredge spoil; silt curtain
Weather conditions: Sunny, Hot, Humid, Wind SSW
Analytical lab: STL
COC Number: ~~EQ~~ 13134, ~~EQ~~ 13135

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:45:05 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:45:05 Jun 24
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:45:05 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	09:50:05	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:17 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.729 mg/m³
Time at maximum: 11:30:14 Jun 24
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 11:26:47 Jun 24
Overall Avg Conc: 0.030 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	11:30:17	0.053

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 3
Start time and date: 13:35:19 24-Jun
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.424 mg/m³
Time at maximum: 13:42:31 Jun 24
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:35:19 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	13:40:19	0.001
2	24-Jun	13:45:19	0.048

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:30:43 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.141 mg/m³
Time at maximum: 15:30:57 Jun 24
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:31:13 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	15:35:43	0.007

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-13134**

Project No.	Project Name
030744	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lefang Ben Lefang / EQM

Lab P.O. No. 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 062405	6-24-05	24hr	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Lefang	6-25-05	0810	Wendy Stahl	6/25/05	0810
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop off at STL UAPD

Airbill Number

Reporting/QA Requirements

Turn Around Time (EXACT DUE DATE): 7 Days 7/5/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking EQ-13135

Project No.	Project Name
730244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Cobing / [illegible] / EQM

Lab P.O. No. 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/3270	TO-13/1668
Semi-Vol 062405	6-24-05	24hr.	Filter	1,007.2 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-25-05	0810	[illegible]	6/25/05	0810
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: DROP AT STL LAIPO

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE). 7DAY 7/5/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062405

GC/MS Volatiles

Lot-Sample #...: G5F240220-006
Date Sampled...: 06/24/05
Prep Date.....: 06/28/05
Prep Batch #...: 5180576

Work Order #...: HEFQT1AA
Date Received..: 06/27/05
Analysis Date..: 06/28/05
Method.....: EPA-2 TO-15 SIM

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.094	0.020	ppb(v/v)
Toluene	0.64	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.33	0.040	ppb(v/v)
o-Xylene	0.12	0.020	ppb(v/v)
Benzene	0.44	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062405

GC/MS Semivolatiles

Lot-Sample #...: G5F240220-004 **Work Order #...:** HEFGE1AC **Matrix.....:** AIR
Date Sampled...: 06/24/05 **Date Received..:** 06/27/05
Prep Date.....: 06/27/05 **Analysis Date..:** 07/02/05
Prep Batch #...: 5179377
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**22000**	**500**	**ng**
Acenaphthylene	**7600**	**500**	**ng**
Anthracene	**1300**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**9400**	**500**	**ng**
Fluorene	**18000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**40000**	**1000**	**ng**
Phenanthrene	**50000**	**500**	**ng**
Pyrene	**4800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	48	(25 - 150)
Acenaphthylene-d8	84	(25 - 150)
Acenaphthene-d10	66	(25 - 150)
Phenanthrene-d10	104	(25 - 150)
Benzo(a)pyrene-d12	78	(25 - 150)
Fluoranthene-d10	90	(25 - 150)
Pyrene-d10	89	(25 - 150)
Benzo(a)anthracene-d12	86	(25 - 150)
Chrysene-d12	71	(25 - 150)
Benzo(b)fluoranthene-d12	113	(25 - 150)
Benzo(k)fluoranthene-d12	95	(25 - 150)
Perylene-d12	67	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	67	(25 - 150)
Dibenz(ah)anthracene-d14	74	(25 - 150)
Benzo(ghi)perylene-d12	60	(25 - 150)
Fluorene d-10	112	(25 - 150)
13C6-Fluorene	36	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062405

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-004 Work Order #...: HEFGE1AA Matrix.....: AIR
Date Sampled...: 06/24/05 Date Received..: 06/27/05
Prep Date.....: 06/27/05 Analysis Date..: 06/30/05
Prep Batch #...: 5179379

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**19000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**8200**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**70000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**38000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**35000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**3600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	46	(25 - 150)
13C12-PCB 28	70	(25 - 150)
13C12-PCB 77	92	(25 - 150)
13C12-PCB 81	91	(25 - 150)
13C12-PCB 118	99	(25 - 150)
13C12-PCB 114	101	(25 - 150)
13C12-PCB 105	106	(25 - 150)
13C12-PCB 126	111	(25 - 150)
13C12-PCB 167	85	(25 - 150)
13C12-PCB 156	86	(25 - 150)
13C12-PCB 169	86	(25 - 150)
13C12-PCB 180	89	(25 - 150)
13C12-PCB 170	89	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	0.0	(25 - 150)
13C12-PCB 19	0.0	(25 - 150)
13C12-PCB 54	50	(25 - 150)
13C12-PCB 111	119	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062405

Trace Level Organic Compounds

Lot-Sample #...: G5F240220-004 Work Order #...: HEFGE1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
3	▪ Laboratory Control Sample
4	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB4 & 13C12-PCB19 had zero percent recovery, associated results are qualified as estimated
3 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (166) acceptable limits (25-150) for the laboratory control sample, associated results not qualified
4 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB19 recovered above (167) acceptable limits (25-150), for the method blank associated results not qualified

PAH and PCB data for 06/24/05

Jackie Do — 7/6/05

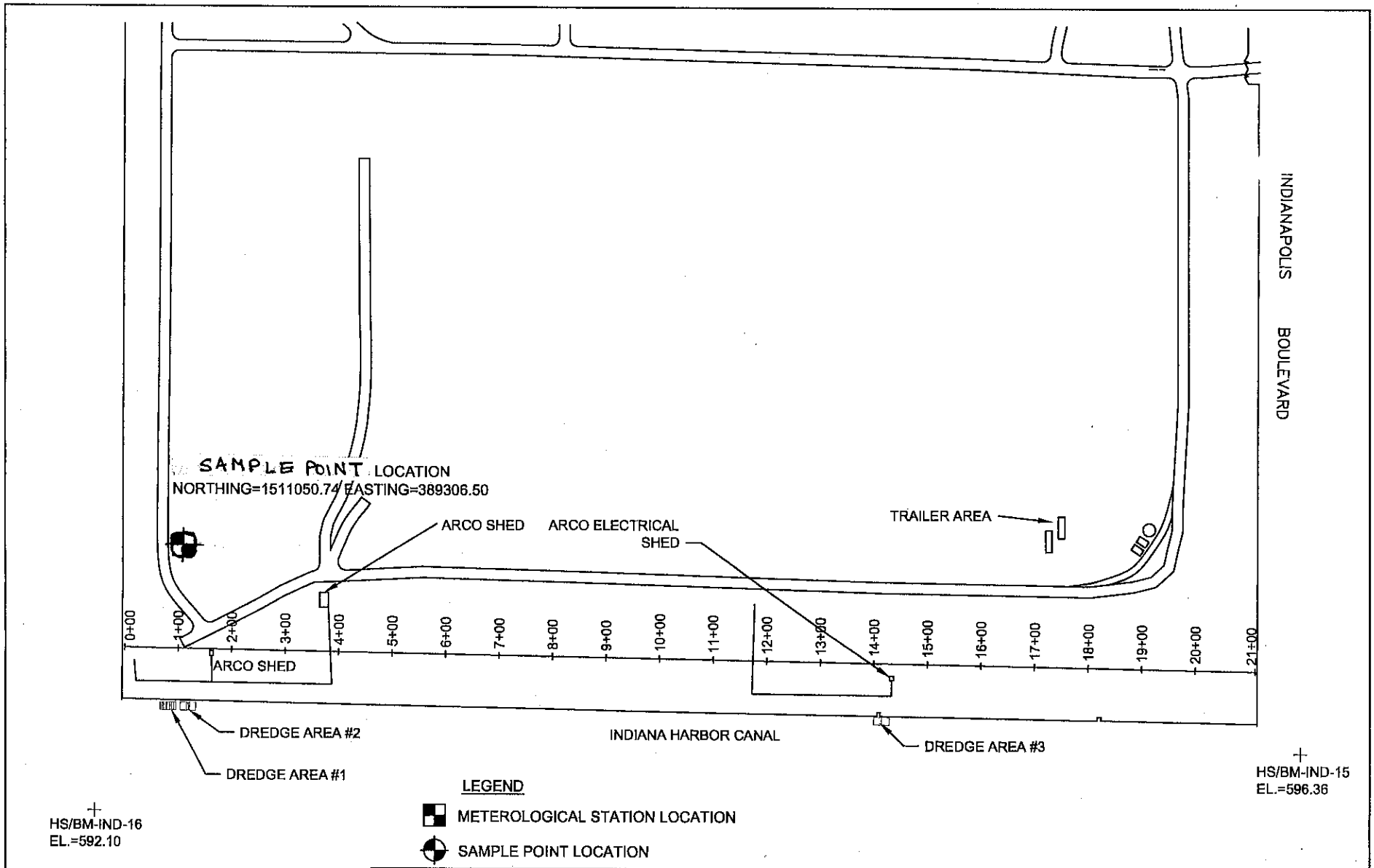
Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/24/05	

Jackie Lam
Reviewer

7/5/05
Date of Review



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062505

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062505	0

Site:	030244
PN	Indiana Harbor
Date:	6/25/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC062505					06:30	06:30	24	6L
TO-13	SemiVol062505					06:30	06:30	24	951.3L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: NONE ; DREDGE SPOIL ON SITE

Weather conditions: Sunny, Hot, Humid

Analytical lab: STL COC Number: ELQ-13136, ELQ-13137

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062505

GC/MS Volatiles

Lot-Sample #...: G5F280173-003 Work Order #...: HEJK51AA Matrix.....: AIR
Date Sampled...: 06/25/05 Date Received..: 06/28/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5194528 Method.....: EPA-2 TO-15 SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.12	0.020	ppb(v/v)
Toluene	1.1	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.31	0.040	ppb(v/v)
o-Xylene	0.12	0.020	ppb(v/v)
Benzene	0.74	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062505

GC/MS Semivolatiles

Lot-Sample #...: G5F280173-001 **Work Order #...:** HEHEQ1AC **Matrix.....:** AIR
Date Sampled...: 06/25/05 **Date Received..:** 06/28/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5182374
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**6600**	**500**	**ng**
Acenaphthylene	**680**	**500**	**ng**
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**3900**	**500**	**ng**
Fluorene	**8400**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**43000**	**1000**	**ng**
Phenanthrene	**20000**	**500**	**ng**
Pyrene	**2000**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	60	(25 - 150)
Acenaphthylene-d8	74	(25 - 150)
Acenaphthene-d10	81	(25 - 150)
Phenanthrene-d10	99	(25 - 150)
Benzo(a)pyrene-d12	75	(25 - 150)
Fluoranthene-d10	89	(25 - 150)
Pyrene-d10	85	(25 - 150)
Benzo(a)anthracene-d12	75	(25 - 150)
Chrysene-d12	61	(25 - 150)
Benzo(b)fluoranthene-d12	92	(25 - 150)
Benzo(k)fluoranthene-d12	94	(25 - 150)
Perylene-d12	70	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	78	(25 - 150)
Dibenz(ah)anthracene-d14	87	(25 - 150)
Benzo(ghi)perylene-d12	71	(25 - 150)
Fluorene d-10	110	(25 - 150)
13C6-Fluorene	54	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062505

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-001 **Work Order #...:** HEHEQ1AA **Matrix.....:** AIR
Date Sampled...: 06/25/05 **Date Received..:** 06/28/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/06/05
Prep Batch #...: 5182373
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**39000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**6100**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**32000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**25000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**24000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**3800 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	63	(25 - 150)
13C12-PCB 28	74	(25 - 150)
13C12-PCB 77	91	(25 - 150)
13C12-PCB 81	90	(25 - 150)
13C12-PCB 118	96	(25 - 150)
13C12-PCB 114	98	(25 - 150)
13C12-PCB 105	101	(25 - 150)
13C12-PCB 126	108	(25 - 150)
13C12-PCB 167	85	(25 - 150)
13C12-PCB 156	86	(25 - 150)
13C12-PCB 169	89	(25 - 150)
13C12-PCB 180	90	(25 - 150)
13C12-PCB 170	86	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	96	(25 - 150)
13C12-PCB 19	102	(25 - 150)
13C12-PCB 54	77	(25 - 150)
13C12-PCB 111	122	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062505

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-001 **Work Order #...:** HEHEQ1AA **Matrix.....:** AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance
PCB8, PCB105 + PCB118 exhibited coeluting isomers

PAH and PCB data for 6/25/05

Jackie Sm
Reviewer

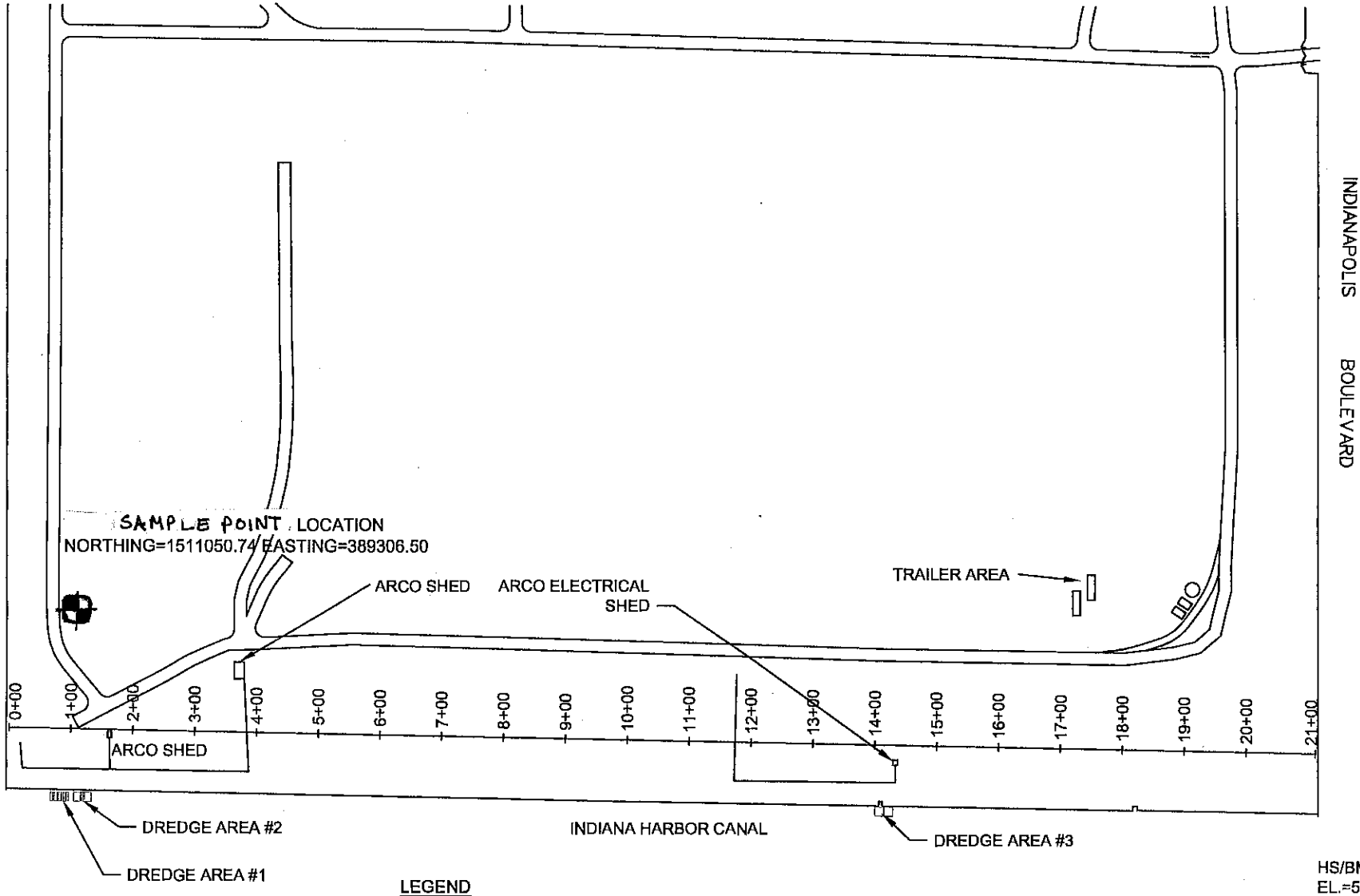
7/11/05
Date of Review

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/20/05	

Jackie Dor — 7/14/05

Reviewer **Date of Review**



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062605

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062605	0

Site: Indiana Harbor
PN 030244
Date: 6 / 26 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Ha 062605					06:35	06:40	24	1,011.5L
TO-13	Sou-Ho 062605					06:35	06:40	24	6L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: NONE ; NEPE SPOIL IN PIT
Weather conditions: Hot, Humid, Variable WIND, .10 Rain
Analytical lab: STL COC Number: EQ 13136, 13137

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062605

GC/MS Volatiles

Lot-Sample #...:	G5F280173-004	Work Order #...:	HEJK61AA	Matrix.....:	AIR
Date Sampled...:	06/26/05	Date Received..:	06/28/05		
Prep Date.....:	07/13/05	Analysis Date..:	07/13/05		
Prep Batch #...:	5194528	Method.....:	EPA-2 TO-15 SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.14	0.020	ppb(v/v)
Toluene	1.3	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.42	0.040	ppb(v/v)
o-Xylene	0.15	0.020	ppb(v/v)
Benzene	0.86	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062605

GC/MS Semivolatiles

Lot-Sample #...: G5F280173-002 **Work Order #...:** HEHEW1AC **Matrix.....:** AIR
Date Sampled...: 06/26/05 **Date Received..:** 06/28/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5182374
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**16000**	**500**	**ng**
Acenaphthylene	**880**	**500**	**ng**
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	**660**	**500**	**ng**
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**5800**	**500**	**ng**
Fluorene	**20000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**44000**	**1000**	**ng**
Phenanthrene	**35000**	**500**	**ng**
Pyrene	**3100**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	43	(25 - 150)
Acenaphthylene-d8	109	(25 - 150)
Acenaphthene-d10	51	(25 - 150)
Phenanthrene-d10	97	(25 - 150)
Benzo(a)pyrene-d12	74	(25 - 150)
Fluoranthene-d10	81	(25 - 150)
Pyrene-d10	80	(25 - 150)
Benzo(a)anthracene-d12	77	(25 - 150)
Chrysene-d12	62	(25 - 150)
Benzo(b)fluoranthene-d12	95	(25 - 150)
Benzo(k)fluoranthene-d12	83	(25 - 150)
Perylene-d12	66	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	73	(25 - 150)
Dibenz(ah)anthracene-d14	83	(25 - 150)
Benzo(ghi)perylene-d12	67	(25 - 150)
Fluorene d-10	91	(25 - 150)
13C6-Fluorene	48	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062605

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-002 **Work Order #...:** HEHEW1AA **Matrix.....:** AIR
Date Sampled...: 06/26/05 **Date Received..:** 06/28/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/06/05
Prep Batch #...: 5182373
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**87000 C,E**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**16000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**99000 E**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**55000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**61000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**2200 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5500 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2400**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	55	(25 - 150)
13C12-PCB 28	75	(25 - 150)
13C12-PCB 77	93	(25 - 150)
13C12-PCB 81	95	(25 - 150)
13C12-PCB 118	91	(25 - 150)
13C12-PCB 114	99	(25 - 150)
13C12-PCB 105	99	(25 - 150)
13C12-PCB 126	111	(25 - 150)
13C12-PCB 167	78	(25 - 150)
13C12-PCB 156	80	(25 - 150)
13C12-PCB 169	78	(25 - 150)
13C12-PCB 180	79	(25 - 150)
13C12-PCB 170	80	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	35	(25 - 150)
13C12-PCB 19	56	(25 - 150)
13C12-PCB 54	65	(25 - 150)
13C12-PCB 111	123	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062605

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-002 **Work Order #...:** HEHEW1AA **Matrix.....:** AIR

NOTE(S):

C Co-eluting isomer.

E Estimated result. Result concentration exceeds the calibration range.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

- PCB8, PCB105 & PCB118 exhibited co-eluting isomers, results estimated
- PCB8 & PCB18 are estimated concentrations, results exceed calibration range

PAH and PCB data for 6/26/05

Jackie Son — 7/11/05

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

VOCs data for 6/24/05

Jackie Do
Reviewer

7/14/05
Date of Review

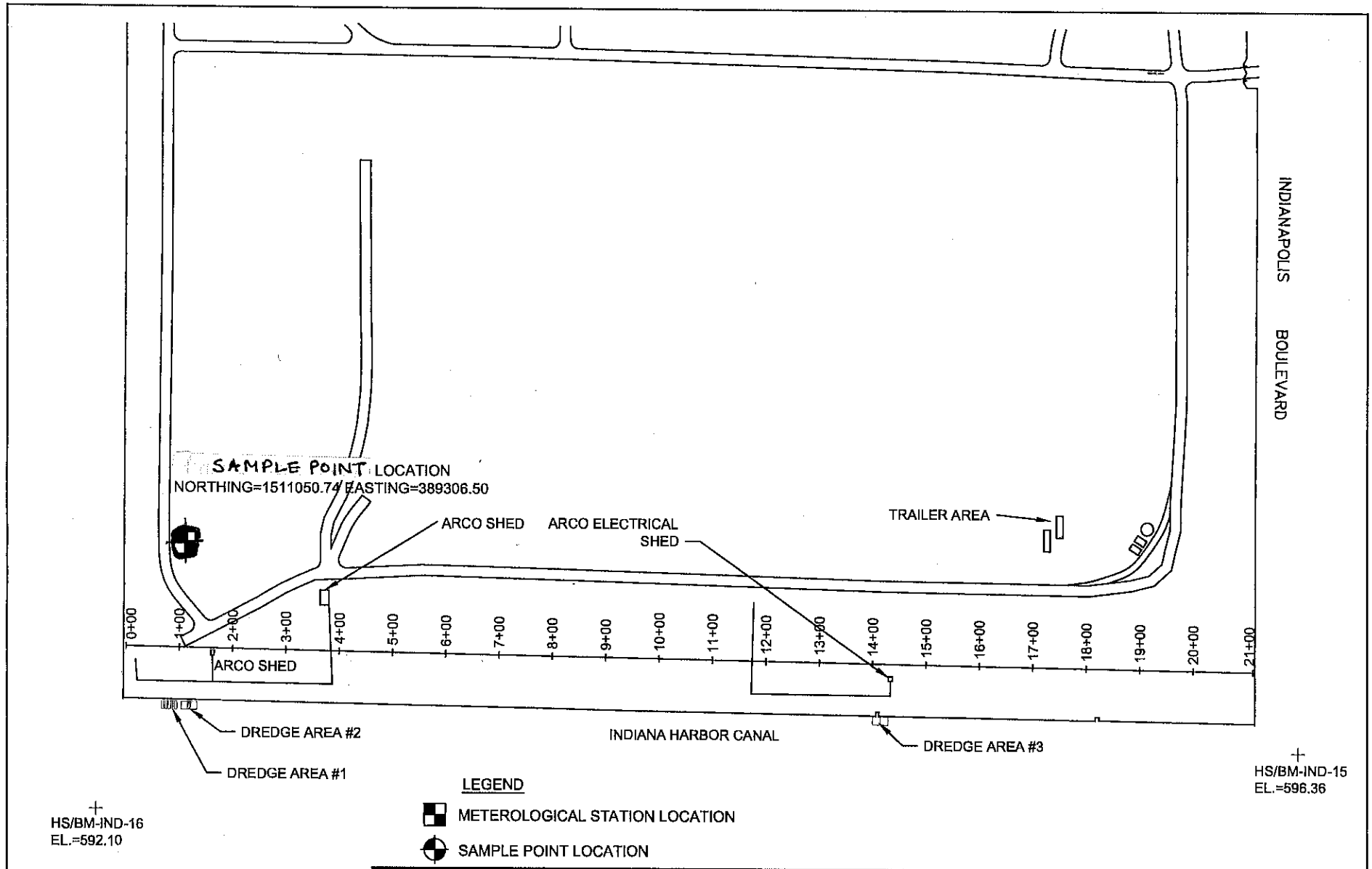
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
062705 0805	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny Hot Humid S-wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Page ____ of ____



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
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DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062705

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062705	0

6-27-05

Enter city or US zip See weather related to ... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

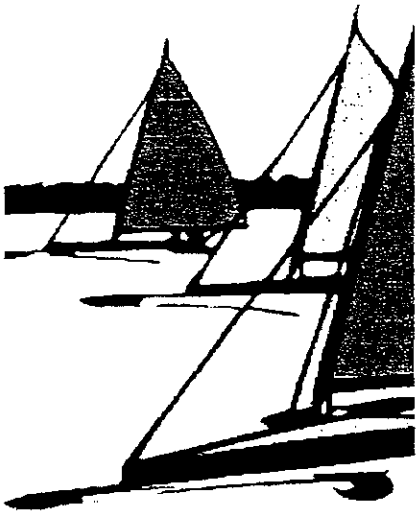
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday · Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear 75°F	78°F	70°F	83%	7.0 miles	30.06	From S 9mph
Sunrise at 5:18 AM							
5:50 AM	Haze 75°F	78°F	72°F	89%	5.0 miles	30.07 ↑	Variable 5mph
6:50 AM	Haze 77°F	80°F	72°F	83%	5.0 miles	30.07 →	Variable 5mph
7:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	30.08 ↑	Variable 5mph
8:46 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	30.08 →	Variable 5mph
9:47 AM	Haze 88°F	95°F	73°F	62%	5.0 miles	30.08 →	From S 9mph
10:50 AM	Sunny 91°F	98°F	72°F	52%	7.0 miles	30.07 ↓	From WSW 9mph
11:45 AM	Partly Cloudy 91°F	96°F	68°F	46%	7.0 miles	30.07 →	From SSW 9mph
12:45 PM	Partly Cloudy 91°F	95°F	66°F	43%	7.0 miles	30.06 ↓	From SSW 9mph
1:45 PM	Partly Cloudy 93°F	96°F	64°F	38%	7.0 miles	30.04 ↓	From SSW 9mph
2:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.02 ↓	From S 14mph
3:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.01 ↓	From S 12mph

THE RACE TO MACKIN
STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS. to be a part of the 2005-06 Round-the-W Race http://team abnamro.com

Sailing under the flag TEAM ABN AMRO

Special Offers in East Chic

4:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.00 ↓	From S 12mph
5:50 PM	Partly Cloudy 93°F	95°F	63°F	36%	7.0 miles	29.98 ↓	From S 9mph
6:50 PM	Partly Cloudy 91°F	93°F	63°F	38%	7.0 miles	29.96 ↓	From SSE 12mph
7:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	7.0 miles	29.96 →	From S 9mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 88°F	90°F	66°F	49%	7.0 miles	29.97 ↑	From S 9mph
9:50 PM	Clear 84°F	87°F	68°F	58%	7.0 miles	30.00 ↑	From SSE 8mph

Avg. 55° 29.03

Back to previous page

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OR
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- Find Top Golf Destinations
- U.S. Golf Weather Maps
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9 AM | Day Planner

12 PM | Weather Center

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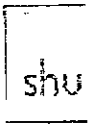

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summer
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This Week's Features

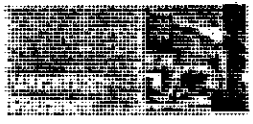
Summer Lawn Care

Tips to gro
yard in hot
weather.

Driving Weather

Check curr
conditions

Summer Adventure



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Weather a

Site:	Indiana Harbor
PN	030244
Date:	6 / 27 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 062705					07:00	06:30	23.5	6
TO-13	SVMVOC062705					07:00	06:30	23.5	961.3
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BF

Calculations by: [illegible]

Checked by: [illegible]

Activities performed on site: Site cleanup Dredge spoil on site

Weather conditions: Sunny, hot, humid S-wind

Analytical lab: STL

COC Number: EQ 13138, 13139

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:59:17 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.042 mg/m³
Time at maximum: 09:59:30 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:59:17 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	10:04:17	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:33:17 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.003 mg/m³
Time at maximum: 12:33:38 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:33:17 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	12:38:17	0.002

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:36:37 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:36:37 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:36:37 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	14:41:37	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:33:03 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.242 mg/m³
Time at maximum: 15:33:21 Jun 27
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:33:33 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	15:38:03	0.012

EQ 1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13138

Project No.	Project Name					
030244	Indiana Harbor Obstruction Removal					
Samplers/Affiliation: (Print Name and Sign) Ben Lebang [signature] / EQM			Lab P.O. No: 9132			
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-14
VOC 062705	6/27/05	735hr	Summa	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	6/28/05	845	[signature]	6/28	845	STL - Pick up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7 DAYS 7/6/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13139

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lobrey [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: 7D13/8270	TESTS: 7D13/1668
Sani-Vol 062705	6-27-05	13:5hr.	Filter	961.3 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-28-05	845	[signature]	6/28	1115
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Site - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 7/7/05

Report To: Tarlie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062705

GC/MS Volatiles

Lot-Sample #...: G5F280173-006 Work Order #...: HEQG51AA Matrix.....: AIR
Date Sampled...: 06/27/05 Date Received..: 06/29/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5194528 Method.....: EPA-2 TO-15 SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.042	0.020	ppb(v/v)
Toluene	0.31	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.14	0.040	ppb(v/v)
o-Xylene	0.048	0.020	ppb(v/v)
Benzene	0.24	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062705

GC/MS Semivolatiles

Lot-Sample #...: G5F280173-005 **Work Order #...:** HELKJ1AC **Matrix.....:** AIR
Date Sampled...: 06/27/05 **Date Received..:** 06/29/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/05/05
Prep Batch #...: 5182374
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**20000**	**500**	**ng**
Acenaphthylene	**760**	**500**	**ng**
Anthracene	**500**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**8000**	**500**	**ng**
Fluorene	**16000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**31000**	**1000**	**ng**
Phenanthrene	**39000**	**500**	**ng**
Pyrene	**4200**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	47	(25 - 150)
Acenaphthylene-d8	99	(25 - 150)
Acenaphthene-d10	66	(25 - 150)
Phenanthrene-d10	98	(25 - 150)
Benzo(a)pyrene-d12	71	(25 - 150)
Fluoranthene-d10	87	(25 - 150)
Pyrene-d10	80	(25 - 150)
Benzo(a)anthracene-d12	71	(25 - 150)
Chrysene-d12	57	(25 - 150)
Benzo(b)fluoranthene-d12	89	(25 - 150)
Benzo(k)fluoranthene-d12	66	(25 - 150)
Perylene-d12	63	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	71	(25 - 150)
Dibenz(ah)anthracene-d14	80	(25 - 150)
Benzo(ghi)perylene-d12	66	(25 - 150)
Fluorene d-10	101	(25 - 150)
13C6-Fluorene	74	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062705

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-005 **Work Order #...:** HELKJ1AA **Matrix.....:** AIR
Date Sampled...: 06/27/05 **Date Received..:** 06/29/05
Prep Date.....: 06/29/05 **Analysis Date..:** 07/06/05
Prep Batch #...: 5182373
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**35000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 15 (BZ)	**6700**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**46000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**35000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**44000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**3400 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2100**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	46	(25 - 150)
13C12-PCB 28	71	(25 - 150)
13C12-PCB 77	95	(25 - 150)
13C12-PCB 81	94	(25 - 150)
13C12-PCB 118	99	(25 - 150)
13C12-PCB 114	101	(25 - 150)
13C12-PCB 105	100	(25 - 150)
13C12-PCB 126	112	(25 - 150)
13C12-PCB 167	80	(25 - 150)
13C12-PCB 156	83	(25 - 150)
13C12-PCB 169	84	(25 - 150)
13C12-PCB 180	84	(25 - 150)
13C12-PCB 170	84	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	77	(25 - 150)
13C12-PCB 19	58	(25 - 150)
13C12-PCB 54	51	(25 - 150)
13C12-PCB 111	118	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062705

Trace Level Organic Compounds

Lot-Sample #...: G5F280173-005 Work Order #...: HELKJ1AA Matrix.....: AIR

NOTE(S):

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
✓	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance
PCB8, PCB105, & PCB118 exhibited co-eluting isomers
results estimated

PAH and PCB data for 6/27/05

Jackie Lan
Reviewer

7/11/05
Date of Review

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/27/05	

Jackie [illegible] 7/14/05

Reviewer **Date of Review**

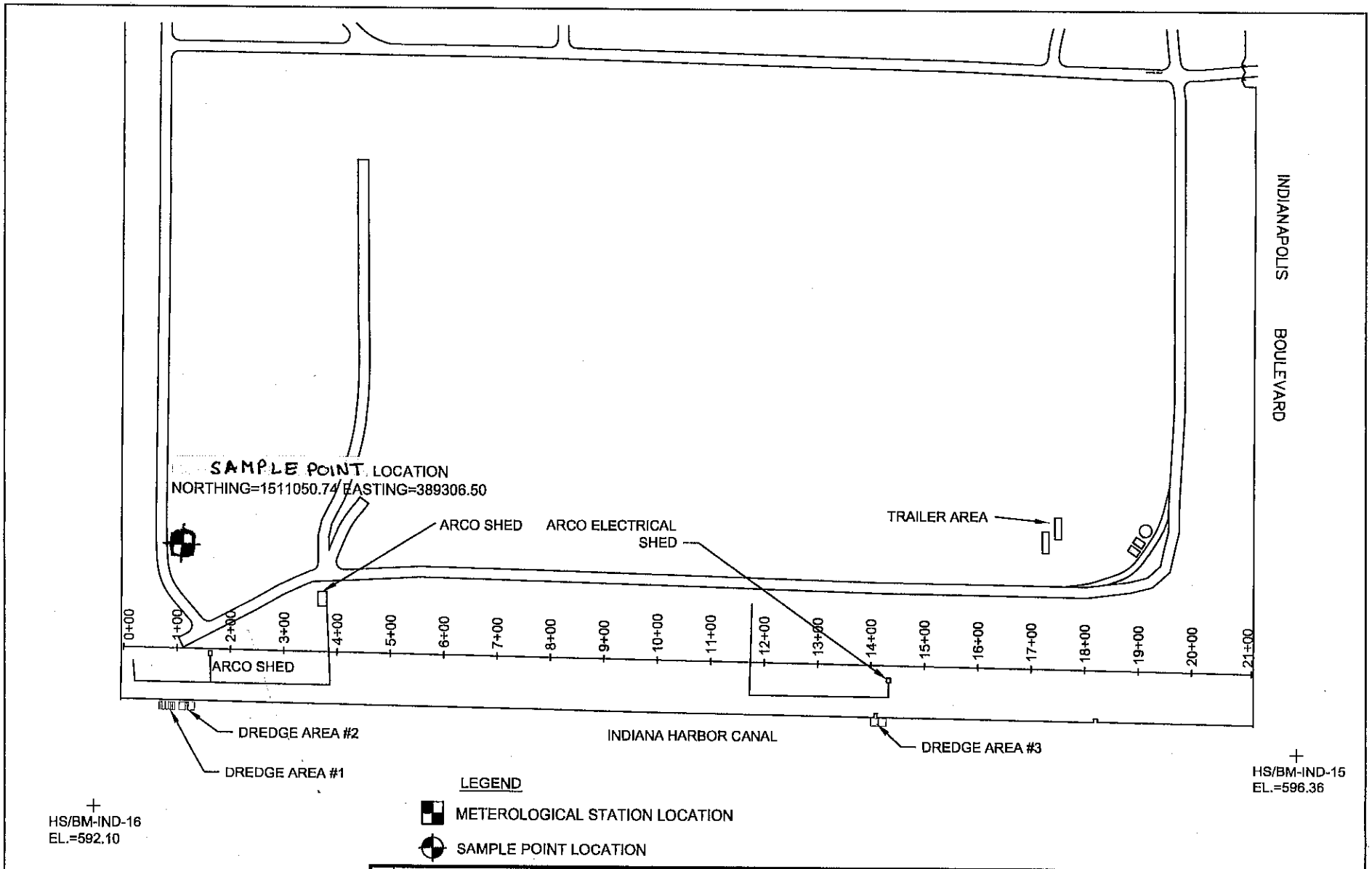
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
062905 0755	PDR	[illegible]	zero Calibration	"Cal OK"	Overcast, Hot, Humid S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062805

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062805	0

6-28-05

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Haze 79°F	82°F	70°F	74%	5.0 miles	29.96	Variable 5mph
Sunrise at 5:18 AM							
5:50 AM	Haze 79°F	83°F	72°F	78%	4.0 miles	29.96 →	Variable 5mph
6:50 AM	Haze 79°F	82°F	70°F	74%	4.0 miles	29.97 ↑	From S 9mph
7:45 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	29.99 ↑	From WSW 9mph
8:45 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	29.99 →	From WSW 9mph
9:50 AM	Haze 82°F	88°F	73°F	74%	5.0 miles	29.98 ↓	From WSW 9mph
10:45 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	29.98 →	From WSW 9mph
11:50 AM	Mostly Cloudy 88°F	92°F	70°F	55%	5.0 miles	29.99 ↑	From WSW 9mph
12:50 PM	Mostly Cloudy 91°F	109°F	81°F	71%	7.0 miles	29.97 ↓	From W 9mph
1:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	7.0 miles	29.95 ↓	From W 9mph
2:50 PM	Mostly Cloudy 91°F	96°F	68°F	46%	7.0 miles	29.93 ↓	From SW 9mph
3:50 PM	Mostly Cloudy 93°F	100°F	70°F	46%	7.0 miles	29.9[illegible] ↓	From WSW 8mph

Today in East Chicago

- 4th of July Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Real-time local traffic reports

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Special Offers in East Chic

Meyer Photograph

4:50 PM	Cloudy 91°F	96°F	68°F	46%	10.0 miles	29.91 →	Variable 7mph
5:50 PM	Mostly Cloudy 91°F	97°F	70°F	49%	7.0 miles	29.92 ↑	From NE 9mph
6:50 PM	Mostly Cloudy 86°F	88°F	66°F	51%	10.0 miles	29.92 →	From NE 9mph
7:50 PM	Light Rain with Thunder 84°F	87°F	68°F	58%	10.0 miles	29.95 ↑	Variable 5mph
Sunset at 8:28 PM							
8:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.95 →	calm

Avg 85° 29.95

Back to previous page

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Site:	Indiana Harbor
PN	030244
Date:	6 / 28 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Va 062805					06:40	06:25	23.5	6L
TO-13	Sum-Vol	062805				06:50	06:25	23.5	952.3L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]

Calculations by: [illegible]

Checked by: [illegible]

Activities performed on site: Site cleanup, Direct spoil on site.

Weather conditions: Sunny, Hot, Humid, Variable Light Wind

Analytical lab: STL

COC Number: 13140, 13141

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:17:18 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.101 mg/m³
Time at maximum: 09:17:49 Jun 28
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 09:17:48 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	09:22:18	0.008

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:23:48 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.290 mg/m³
Time at maximum: 11:23:49 Jun 28
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 11:24:18 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	11:28:48	0.024

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:36:56 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:36:56 Jun 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:36:56 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	13:41:56	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 14:59:14 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:59:14 Jun 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:59:14 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	15:04:14	0

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ-** 13140

Project No	Project Name		
030244	Zionsville Harbor Obstruction Removal		
Samplers/Affiliation: (Print Name and Sign)		Lab P.O. No: 9132	

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TO-15											
VOC 06-2805	6/28/05	13.5hr	Summa Canister	6L	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
	6/29/05	8:30		6/29	8:30	STL - Pickup on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7 day 7/6/05	Report To: Jackie Dunn	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking **EQ- 13141**

Project No	Project Name
0307144	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Cotney / [illegible]

Lab P.O. No 9132

Sample ID.	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TEST: B-13 KOP	TEST: B-13 HLG8
Semi-Vol 062805	3.5W.	6-28-05	Filter	952.3 L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	6-29-05	[illegible]	[illegible]	6/29	930
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (*EXACT DUE DATE*): Today 7/8/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062805

GC/MS Volatiles

Lot-Sample #...:	G5F300212-002	Work Order #...:	HEQG61AA	Matrix.....:	AIR
Date Sampled...:	06/28/05	Date Received..:	06/30/05		
Prep Date.....:	07/13/05	Analysis Date..:	07/13/05		
Prep Batch #...:	5194528	Method.....:	EPA-2 TO-15 SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.096	0.020	ppb(v/v)
Toluene	0.66	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.28	0.040	ppb(v/v)
o-Xylene	0.096	0.020	ppb(v/v)
Benzene	0.38	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062805

GC/MS Semivolatiles

Lot-Sample #...:	G5F300212-001	**Work Order #...:**	HENXH1AC	**Matrix.....:**	AIR
Date Sampled...:	06/28/05	**Date Received..:**	06/30/05		
Prep Date.....:	07/01/05	**Analysis Date..:**	07/07/05		
Prep Batch #...:	5186291				
Dilution Factor:	1	**Method.....:**	SW846 8270C SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**17000**	**500**	**ng**
Acenaphthylene	**1100**	**500**	**ng**
Anthracene	**570**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**6700**	**500**	**ng**
Fluorene	**12000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**53000 D**	**1000**	**ng**
Phenanthrene	**36000**	**500**	**ng**
Pyrene	**3500**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	51	(25 - 150)
Acenaphthylene-d8	72	(25 - 150)
Acenaphthene-d10	58	(25 - 150)
Phenanthrene-d10	102	(25 - 150)
Benzo(a)pyrene-d12	83	(25 - 150)
Fluoranthene-d10	85	(25 - 150)
Pyrene-d10	82	(25 - 150)
Benzo(a)anthracene-d12	76	(25 - 150)
Chrysene-d12	64	(25 - 150)
Benzo(b)fluoranthene-d12	97	(25 - 150)
Benzo(k)fluoranthene-d12	95	(25 - 150)
Perylene-d12	76	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	82	(25 - 150)
Dibenz(ah)anthracene-d14	94	(25 - 150)
Benzo(ghi)perylene-d12	77	(25 - 150)
Fluorene d-10	133	(25 - 150)
13C6-Fluorene	50	(25 - 150)

NOTE(S):

D Result was obtained from the analysis of a dilution.

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062805

Trace Level Organic Compounds

Lot-Sample #...: G5F300212-001 Work Order #...: HENXH1AA Matrix.....: AIR
Date Sampled...: 06/28/05 Date Received..: 06/30/05
Prep Date.....: 07/01/05 Analysis Date..: 07/06/05
Prep Batch #...: 5186293
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**36000 C,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**8600**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**18000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**34000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**34000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1700 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**3700 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**1900**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	28	(25 - 150)
13C12-PCB 28	79	(25 - 150)
13C12-PCB 77	120	(25 - 150)
13C12-PCB 81	115	(25 - 150)
13C12-PCB 118	104	(25 - 150)
13C12-PCB 114	107	(25 - 150)
13C12-PCB 105	101	(25 - 150)
13C12-PCB 126	111	(25 - 150)
13C12-PCB 167	111	(25 - 150)
13C12-PCB 156	118	(25 - 150)
13C12-PCB 169	114	(25 - 150)
13C12-PCB 180	108	(25 - 150)
13C12-PCB 170	107	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	58	(25 - 150)
13C12-PCB 19	22 *	(25 - 150)
13C12-PCB 54	43	(25 - 150)
13C12-PCB 111	116	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 062805

Trace Level Organic Compounds

Lot-Sample #...: G5F300212-001 Work Order #...: HENXH1AA Matrix.....: AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
3	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB4 & 13C12-PCB19 recovered below (22) acceptable limits (25-150), associated results are qualified as estimated
3 PCB8 was detected in the method blank at 1700 pg, results were >10 blank concentration

PAH and PCB data for 06/28/05

Jackie Lon — 7/11/05 (PCB) 7/12/05 (PAHs)

Reviewer **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/28/05	

Jackie Dow — 7/14/05

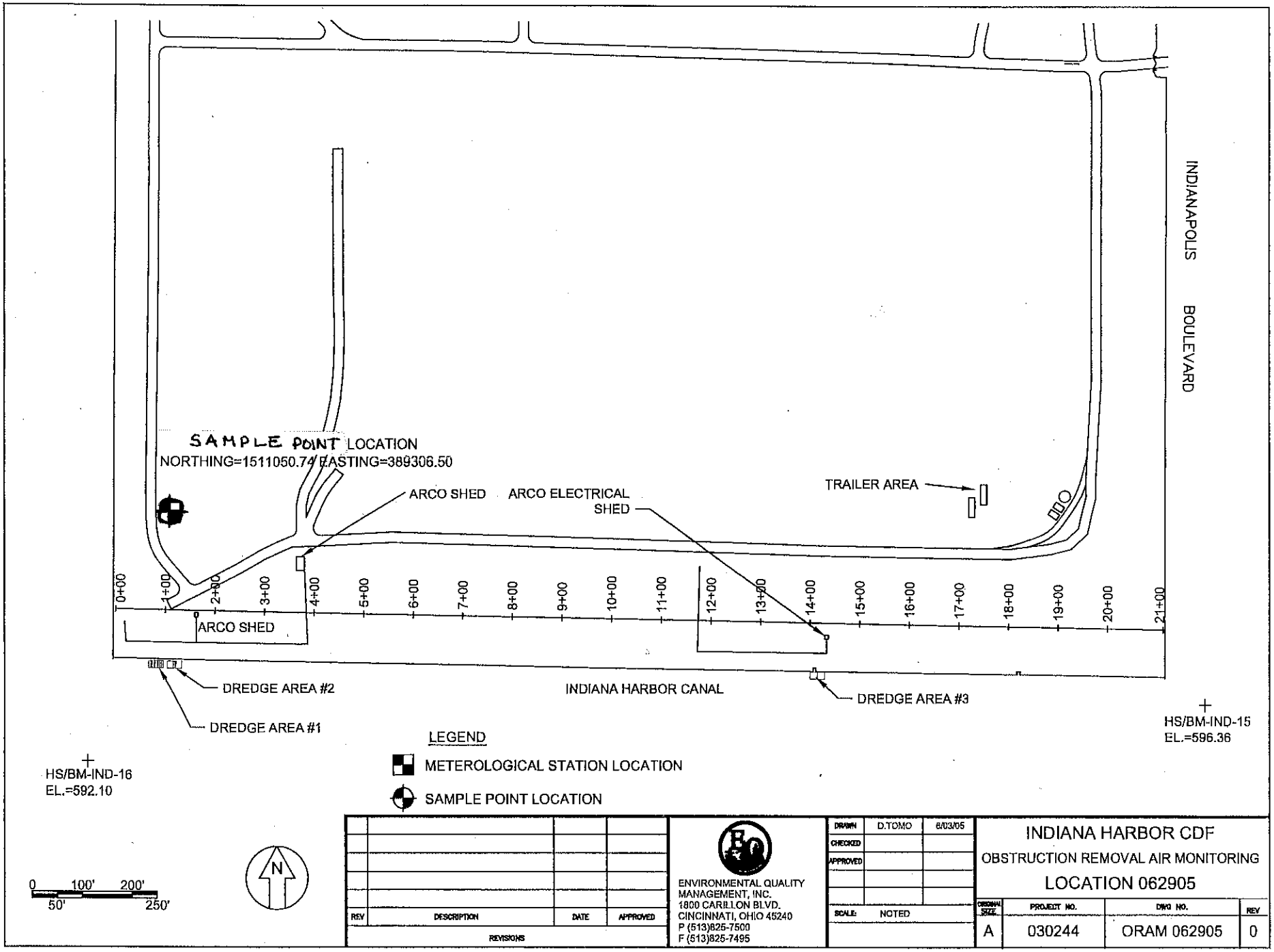
Reviewer — **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-29-05 0833	PDR	[illegible]	zero Calibration	"Cal OK"	Sunny, Hot, humid Variable Wind.

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 062905

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 062905	0

6-29-05

Enter city or US zip See weather related to ... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

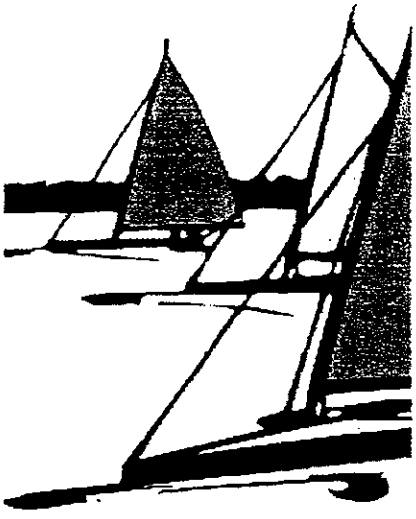
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.96	Variable 6mph
	Sunrise at 5:18 AM						
5:50 AM	Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.96 →	Variable 6mph
6:50 AM	Mostly Cloudy 75°F	78°F	70°F	83%	7.0 miles	29.97 ↑	Variable 7mph
7:50 AM	Partly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.98 ↑	Variable 7mph
8:50 AM	Haze 81°F	85°F	72°F	74%	6.0 miles	29.98 →	Variable 7mph
9:50 AM	Haze 82°F	88°F	73°F	74%	5.0 miles	29.97 ↓	Variable 5mph
10:50 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	29.98 ↑	From NNE 8mph
11:50 AM	Mostly Cloudy 86°F	90°F	70°F	58%	7.0 miles	29.98 →	From NE 14mph
12:50 PM	Mostly Cloudy 86°F	88°F	66°F	51%	10.0 miles	29.96 ↓	From NE 12mph
1:50 PM	Mostly Cloudy 86°F	89°F	68°F	55%	10.0 miles	29.95 ↓	From NE 17mph
2:53 PM	Mostly Cloudy 84°F	88°F	70°F	62%	10.0 miles	29.94 ↓	From NE 12mph
3:50 PM	Mostly Cloudy 86°F	90°F	70°F	58%	10.0 miles	29.93 ↓	Variable 5mph

THE RACE TO MACKIN
STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-W
Race. http://team.abnamro.com

Special Offers in East Chic

4:50 PM	Mostly Cloudy 84°F	88°F	70°F	62%	10.0 miles	29.92 ↓	Variable 6mph
5:50 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.93 ↑	Variable 6mph
6:45 PM	Cloudy 81°F	85°F	72°F	74%	7.0 miles	29.91 ↓	Variable 5mph
7:49 PM	Haze 81°F	87°F	75°F	84%	5.0 miles	29.91 →	From NE 9mph
Sunset at 8:28 PM							
8:54 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.92 ↑	calm
9:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.91 ↓	Variable 5mph

Avg. 81° 29.95

Back to previous page

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Site: Indiana Harbor
PN 030244
Date: 6 / 29 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ Hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 062905					06:30	06:30	24hr	6
TO-13	Semi VOC 062905					06:30	06:30	24hr	994.8
SV Field Blank	062905					:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Diving to cut pipe, mix dredge spoil
Weather conditions: Hot, Humid Variable Wind
Analytical lab: STL COC Number: ~~EQ~~ 13142, EQ 13143

* Filter media used today was not chilled when recieved on 6/28/05.

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:22:31 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.996 mg/m³
Time at maximum: 09:23:01 Jun 29
Max STEL Concentration: 0.043 mg/m³
Time at max STEL: 09:23:01 Jun 29
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	09:27:31	0.085

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:21 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:25:21 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:25:21 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	11:30:21	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:31:22 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:31:22 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:31:22 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	13:36:22	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 3
Start time and date: 15:44:17 29-Jun
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:44:17 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:44:17 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	15:49:17	0.002

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13142

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lehring / EQ Inc

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: TO-15
Vol OK 7/05 6	7-14-05	24hr.	Summa Canister	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Ben Lehring	6-30-05	830	Quan Tullm	6/30/05	830	STL - Pick up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7 DAY 7/9/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13143

Project No.: 830244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Letney Ben Blum / EQ

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi Vol 062905	6-29-05	24hr	Filter	994.8L	2	X	X
SV Field Blank 062905	"	"	"	N/A	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-30-05	850	[signature]	6/30/05	850
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 1-DAY 7/9/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

p 3

Jun 30 05 11:03a

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 062905

GC/MS Volatiles

Lot-Sample #...: G5F300212-005 Work Order #...: HER621AA Matrix.....: AIR
Date Sampled...: 06/29/05 Date Received..: 07/01/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5194528 Method.....: EPA-2 TO-15 SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.11	0.020	ppb(v/v)
Toluene	0.87	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.38	0.040	ppb(v/v)
o-Xylene	0.11	0.020	ppb(v/v)
Benzene	0.62	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 062905

GC/MS Semivolatiles

Lot-Sample #...: G5F300212-003 **Work Order #...:** HERNP1AC **Matrix.....:** AIR
Date Sampled...: 06/29/05 **Date Received..:** 07/01/05
Prep Date.....: 07/01/05 **Analysis Date..:** 07/07/05
Prep Batch #...: 5186291
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**12000**	**500**	**ng**
Acenaphthylene	**1400**	**500**	**ng**
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	**670**	**500**	**ng**
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	**790**	**500**	**ng**
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**6300**	**500**	**ng**
Fluorene	**12000**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**59000 D**	**5000**	**ng**
Phenanthrene	**31000**	**500**	**ng**
Pyrene	**3800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	54	(25 - 150)
Acenaphthylene-d8	66	(25 - 150)
Acenaphthene-d10	65	(25 - 150)
Phenanthrene-d10	105	(25 - 150)
Benzo(a)pyrene-d12	88	(25 - 150)
Fluoranthene-d10	90	(25 - 150)
Pyrene-d10	86	(25 - 150)
Benzo(a)anthracene-d12	74	(25 - 150)
Chrysene-d12	64	(25 - 150)
Benzo(b)fluoranthene-d12	96	(25 - 150)
Benzo(k)fluoranthene-d12	106	(25 - 150)
Perylene-d12	81	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	88	(25 - 150)
Dibenz(ah)anthracene-d14	101	(25 - 150)
Benzo(ghi)perylene-d12	82	(25 - 150)
Fluorene d-10	117	(25 - 150)
13C6-Fluorene	32	(25 - 150)

NOTE(S):

D Result was obtained from the analysis of a dilution.

Environmental Quality Mgt., Inc.

Client Sample ID: SV FIELD BLANK 062905

GC/MS Semivolatiles

Lot-Sample #...: G5F300212-004 **Work Order #...:** HERN01AC **Matrix.....:** AIR
Date Sampled...: 06/29/05 **Date Received..:** 07/01/05
Prep Date.....: 07/01/05 **Analysis Date..:** 07/07/05
Prep Batch #...: 5186291
Dilution Factor: 1 **Method.....:** SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	500	ng
Acenaphthylene	ND	500	ng
Anthracene	ND	500	ng
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	ND	500	ng
Fluorene	ND	500	ng
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	ND	1000	ng
Phenanthrene	ND	500	ng
Pyrene	ND	500	ng

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	71	(25 - 150)
Acenaphthylene-d8	83	(25 - 150)
Acenaphthene-d10	83	(25 - 150)
Phenanthrene-d10	99	(25 - 150)
Benzo(a)pyrene-d12	103	(25 - 150)
Fluoranthene-d10	91	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	80	(25 - 150)
Chrysene-d12	69	(25 - 150)
Benzo(b)fluoranthene-d12	97	(25 - 150)
Benzo(k)fluoranthene-d12	113	(25 - 150)
Perylene-d12	93	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	94	(25 - 150)
Dibenz(ah)anthracene-d14	105	(25 - 150)
Benzo(ghi)perylene-d12	88	(25 - 150)
Fluorene d-10	100	(25 - 150)
13C6-Fluorene	90	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 062905

Trace Level Organic Compounds

Lot-Sample #...: G5F300212-003 Work Order #...: HERNP1AA Matrix.....: AIR
Date Sampled...: 06/29/05 Date Received..: 07/01/05
Prep Date.....: 07/01/05 Analysis Date..: 07/06/05
Prep Batch #...: 5186293
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**82000 C,E,B**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**14000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**21000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**37000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**38000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**2000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**5000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	**2400**	**1000**	**pg**	**EPA-14 1668**
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	28	(25 - 150)
13C12-PCB 28	94	(25 - 150)
13C12-PCB 77	105	(25 - 150)
13C12-PCB 81	113	(25 - 150)
13C12-PCB 118	94	(25 - 150)
13C12-PCB 114	99	(25 - 150)
13C12-PCB 105	100	(25 - 150)
13C12-PCB 126	104	(25 - 150)
13C12-PCB 167	126	(25 - 150)
13C12-PCB 156	132	(25 - 150)
13C12-PCB 169	126	(25 - 150)
13C12-PCB 180	114	(25 - 150)
13C12-PCB 170	114	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	72	(25 - 150)
13C12-PCB 19	25	(25 - 150)
13C12-PCB 54	75	(25 - 150)
13C12-PCB 111	183 *	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI VOL 062905

Trace Level Organic Compounds

Lot-Sample #...: G5F300212-003 Work Order #...: HERNP1AA Matrix.....: AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

E Estimated result. Result concentration exceeds the calibration range.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Quality Mgt., Inc.

Client Sample ID: SV FIELD BLANK 062905

Trace Level Organic Compounds

Lot-Sample #...: G5F300212-004 Work Order #...: HERN01AA Matrix.....: AIR
Date Sampled...: 06/29/05 Date Received..: 07/01/05
Prep Date.....: 07/01/05 Analysis Date..: 07/06/05
Prep Batch #...: 5186293
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	ND	1000	pg	EPA-14 1668
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	ND	1000	pg	EPA-14 1668
PCB 18 (BZ)	ND	1000	pg	EPA-14 1668
PCB 28 (BZ)	ND	1000	pg	EPA-14 1668
PCB 31 (BZ)	ND	1000	pg	EPA-14 1668
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	ND	1000	pg	EPA-14 1668
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	ND	1000	pg	EPA-14 1668
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	53	(25 - 150)
13C12-PCB 28	70	(25 - 150)
13C12-PCB 77	87	(25 - 150)
13C12-PCB 81	74	(25 - 150)
13C12-PCB 118	70	(25 - 150)
13C12-PCB 114	75	(25 - 150)
13C12-PCB 105	68	(25 - 150)
13C12-PCB 126	77	(25 - 150)
13C12-PCB 167	115	(25 - 150)
13C12-PCB 156	115	(25 - 150)
13C12-PCB 169	120	(25 - 150)
13C12-PCB 180	112	(25 - 150)
13C12-PCB 170	113	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	70	(25 - 150)
13C12-PCB 19	48	(25 - 150)
13C12-PCB 54	98	(25 - 150)
13C12-PCB 111	124	(25 - 150)

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1, 2	QA/QC Data ▪ Information provided
3	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
4	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated
2 PCB8 is an estimated concentration, results are above quantitation limit
3 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB111 recovered above (183) acceptable limits (25-150), associated results are qualified as estimated
4 PCB8 was detected in the method blank at 1700 pg, results were >10 blank concentration

PAH and PCB data for 06/29/05

Jackie Dow — **Reviewer**

7/11/05 (PCB) 7/12/05 (PAHs) — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/29/05	

Jackie Dw — 7/14/05

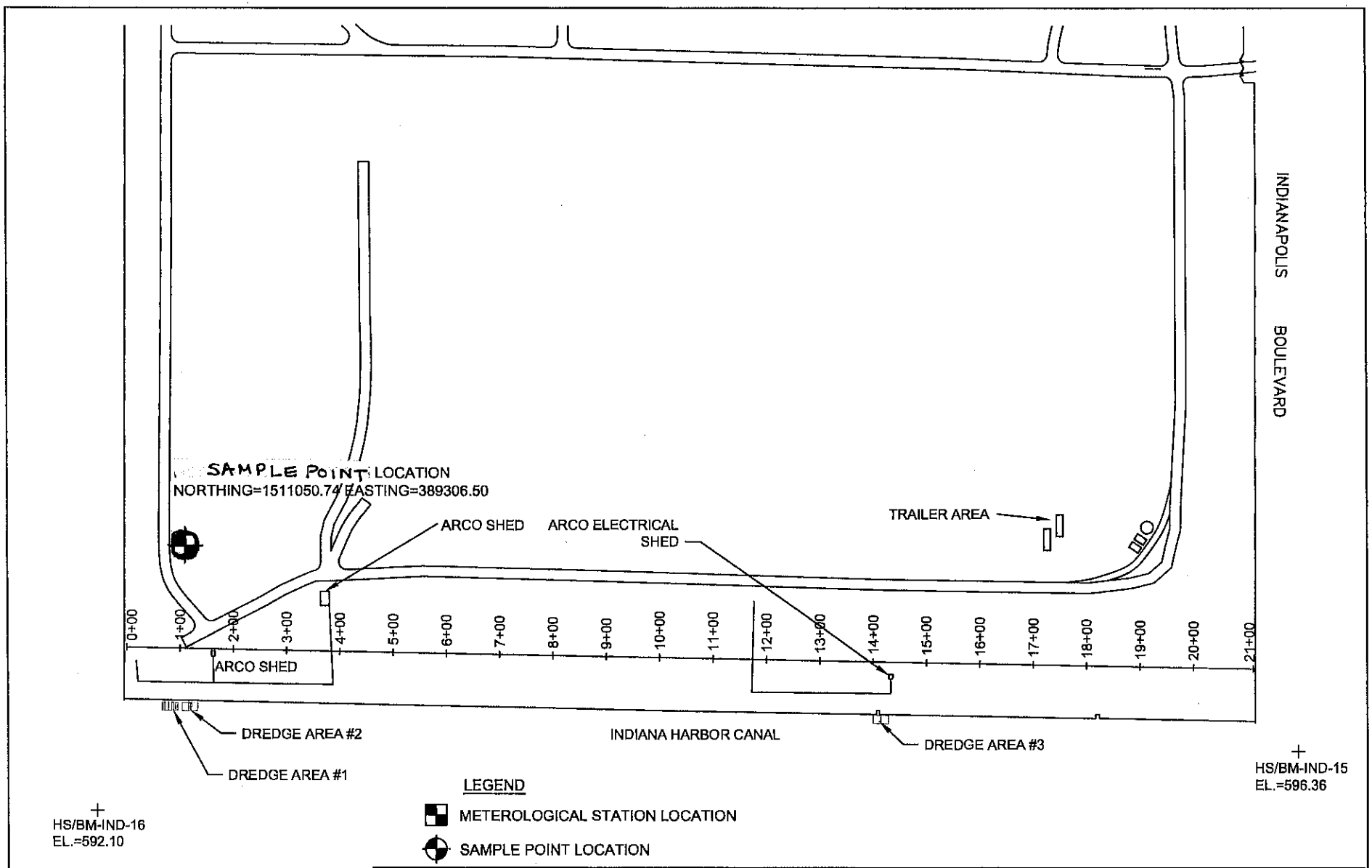
Reviewer **Date of Review**

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: IN Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-30-05 0753	PDR	[illegible]	zero Calibration	"Cal OK"	Overcast, Scattered T-Storms Hot, Humid, S-WIND
6-30-05 1051	Multi-Rae	[illegible]	Fresh air + methane calibration	Calibrated	Sunny, Hot, Humid S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION 063005

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 063005	0

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Haze 81°F	86°F	73°F	79%	6.0 miles	29.86	From SSW 12mph
Sunrise at 5:19 AM							
5:50 AM	Light Rain with Thunder 81°F	86°F	73°F	79%	3.0 miles	29.90 ↑	From W 17mph
6:50 AM	Cloudy 73°F	73°F	70°F	88%	6.0 miles	29.87 ↓	Variable 6mph
7:50 AM	Mostly Cloudy 73°F	73°F	70°F	88%	6.0 miles	29.85 ↓	From SSE 12mph
9:50 AM	Mostly Cloudy 82°F	86°F	70°F	66%	10.0 miles	29.84 ↓	From WSW 17mph
10:50 AM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.82 ↓	From S 17mph
11:50 AM	Mostly Cloudy 91°F	97°F	70°F	49%	Unlimited	29.83 ↑	From WSW 9mph
12:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.83 →	From WSW 9mph
1:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.80 ↓	From WSW 9mph
2:45 PM	Partly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.78 ↓	From SW 12mph
3:50 PM	Partly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.78 →	From WSW 12mph

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Feature Finds

monster

4:50 PM	Partly Cloudy 91°F	95°F	66°F	43%	Unlimited	29.75 ↓	From WSW 12mph	
5:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	Unlimited	29.76 ↑	From WSW 12mph	
6:50 PM	Partly Cloudy 88°F	90°F	66°F	49%	Unlimited	29.77 ↑	From WSW 14mph	
7:50 PM	Partly Cloudy 84°F	87°F	66°F	55%	Unlimited	29.75 ↓	From WSW 12mph	
Sunset at 8:28 PM								
8:50 PM	Partly Cloudy 84°F	85°F	61°F	45%	Unlimited	29.75 →	From WSW 9mph	

Mg. 85° 29.80

Back to previous page

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Summer Lawn Care

Tips to gro yard in hot weather.

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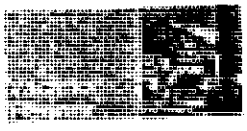

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- Ice
- Dense fog
- Strong winds

Vote View Resu

Site: Indiana Harbor CDF
PN 030244
Date: 6/30/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 063005					06:40	06:30	24	6L
TO-13	Semi VOC 063005					06:40	06:30	24	961.1L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Diving & mixing sediment
Weather conditions: Sunny, hot, chimid; S-SW wind
Analytical lab: SGL COC Number: EQ13144, EQ13145

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:01:28 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.046 mg/m³
Time at maximum: 10:01:32 Jun 30
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 10:08:28 Jun 30
Overall Avg Conc: 0.016 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	10:06:28	0.018

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 12:38:16 30-Jun
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.068 mg/m³
Time at maximum: 12:38:17 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:38:16 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	12:43:16	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:12:41 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.166 mg/m³
Time at maximum: 14:12:42 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:12:41 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	14:17:41	0.002

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:33:49 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:33:49 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:33:49 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	15:38:49	0

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking EQ- 13144

Project No.	Project Name	
0302441	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign) Ben Lehing / EQM		Lab P.O. No: 9132

Sample ID	Date	Time	Description/Matrix.	Sample Volume / Comments	No. of Containers	TO-15
VOC 06-3005	6-30-05	24hr.	Summa Canister	Lab	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	7-1-05	900	[signature]	7-1-05	900	STL - Pick up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements.	Turn Around Time (EXACT DUE DATE): 7-DAY 7/11/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13145

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No.: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 70-13/6270	TESTS: 70-13/1648
Semi-Vol 063005	6-30-05	24hr	Filter	961.1 L	2	X	X

Relinquished by: (Signature) [illegible] — Date: 7/1/05 — Time: 900 — Received by: (Signature) [illegible] — Date: 7/1/05 — Time: 900

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature) — Date: — Time:

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature) — Date: — Time:

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 7/11/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Environmental Quality Mgt., Inc.

Client Sample ID: VOC 063005

GC/MS Volatiles

Lot-Sample #...: G5G020203-002 Work Order #...: HEWRX1AA Matrix.....: AE
Date Sampled...: 06/30/05 Date Received..: 07/02/05
Prep Date.....: 07/13/05 Analysis Date..: 07/13/05
Prep Batch #...: 5194528 Method.....: EPA-2 TO-15 SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	0.047	0.020	ppb(v/v)
Toluene	0.31	0.020	ppb(v/v)
m-Xylene & p-Xylene	0.15	0.040	ppb(v/v)
o-Xylene	0.052	0.020	ppb(v/v)
Benzene	0.22	0.047	ppb(v/v)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 063005

GC/MS Semivolatiles

Lot-Sample #...: G5G020203-001
Date Sampled...: 06/30/05
Prep Date.....: 07/07/05
Prep Batch #...: 5188509
Dilution Factor: 1

Work Order #...: HEVKW1AC
Date Received..: 07/02/05
Analysis Date..: 07/12/05

Matrix.....: AIR

Method.....: SW846 8270C SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**9200**	**500**	**ng**
Acenaphthylene	**540**	**500**	**ng**
Anthracene	**680**	**500**	**ng**
Benzo(a)anthracene	ND	500	ng
Benzo(b)fluoranthene	ND	500	ng
Benzo(k)fluoranthene	ND	500	ng
Benzo(ghi)perylene	ND	500	ng
Benzo(a)pyrene	ND	500	ng
Benzo(e)pyrene	ND	500	ng
Chrysene	ND	500	ng
Dibenz(a,h)anthracene	ND	500	ng
Fluoranthene	**5200**	**500**	**ng**
Fluorene	**7100**	**500**	**ng**
Indeno(1,2,3-cd)pyrene	ND	500	ng
Naphthalene	**15000**	**1000**	**ng**
Phenanthrene	**25000**	**500**	**ng**
Pyrene	**2800**	**500**	**ng**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Naphthalene-d8	57	(25 - 150)
Acenaphthylene-d8	77	(25 - 150)
Acenaphthene-d10	75	(25 - 150)
Phenanthrene-d10	107	(25 - 150)
Benzo(a)pyrene-d12	84	(25 - 150)
Fluoranthene-d10	91	(25 - 150)
Pyrene-d10	87	(25 - 150)
Benzo(a)anthracene-d12	93	(25 - 150)
Chrysene-d12	74	(25 - 150)
Benzo(b)fluoranthene-d12	105	(25 - 150)
Benzo(k)fluoranthene-d12	83	(25 - 150)
Perylene-d12	80	(25 - 150)
Indeno(1,2,3-cd)pyrene-d12	103	(25 - 150)
Dibenz(ah)anthracene-d14	122	(25 - 150)
Benzo(ghi)perylene-d12	100	(25 - 150)
Fluorene d-10	110	(25 - 150)
13C6-Fluorene	31	(25 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 063005

Trace Level Organic Compounds

Lot-Sample #...: G5G020203-001 Work Order #...: HEVKW1AA Matrix.....: AIR
Date Sampled...: 06/30/05 Date Received..: 07/02/05
Prep Date.....: 07/07/05 Analysis Date..: 07/08/05
Prep Batch #...: 5188508
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
PCB 8 (BZ)	**22000 C**	**1000**	**pg**	**EPA-14 1668**
PCB 81 (BZ)	ND	1000	pg	EPA-14 1668
PCB 15 (BZ)	**6000**	**1000**	**pg**	**EPA-14 1668**
PCB 18 (BZ)	**15000**	**1000**	**pg**	**EPA-14 1668**
PCB 28 (BZ)	**21000**	**1000**	**pg**	**EPA-14 1668**
PCB 31 (BZ)	**24000**	**1000**	**pg**	**EPA-14 1668**
PCB 77 (BZ)	ND	1000	pg	EPA-14 1668
PCB 105 (BZ)	**1100 C**	**1000**	**pg**	**EPA-14 1668**
PCB 114 (BZ)	ND	1000	pg	EPA-14 1668
PCB 156 (BZ)	ND	1000	pg	EPA-14 1668
PCB 118 (BZ)	**2600 C**	**1000**	**pg**	**EPA-14 1668**
PCB 123 (BZ)	ND	1000	pg	EPA-14 1668
PCB 126 (BZ)	ND	1000	pg	EPA-14 1668
PCB 157 (BZ)	ND	1000	pg	EPA-14 1668
PCB 167 (BZ)	ND	1000	pg	EPA-14 1668
PCB 169 (BZ)	ND	1000	pg	EPA-14 1668
PCB 170 (BZ)	ND	1000	pg	EPA-14 1668
PCB 180 (BZ)	ND	1000	pg	EPA-14 1668
PCB 189 (BZ)	ND	1000	pg	EPA-14 1668

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 15	38	(25 - 150)
13C12-PCB 28	87	(25 - 150)
13C12-PCB 77	103	(25 - 150)
13C12-PCB 81	100	(25 - 150)
13C12-PCB 118	94	(25 - 150)
13C12-PCB 114	100	(25 - 150)
13C12-PCB 105	102	(25 - 150)
13C12-PCB 126	102	(25 - 150)
13C12-PCB 167	92	(25 - 150)
13C12-PCB 156	97	(25 - 150)
13C12-PCB 169	91	(25 - 150)
13C12-PCB 180	89	(25 - 150)
13C12-PCB 170	88	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C12-PCB 4	15 *	(25 - 150)
13C12-PCB 19	9.7 *	(25 - 150)
13C12-PCB 54	24 *	(25 - 150)
13C12-PCB 111	77	(25 - 150)

(Continued on next page)

Environmental Quality Mgt., Inc.

Client Sample ID: SEMI-VOL 063005

Trace Level Organic Compounds

Lot-Sample #...: G5G020203-001 Work Order #...: HEVKW1AA Matrix.....: AIR

NOTE(S):

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer.

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
1	QA/QC Data ▪ Information provided
2	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank

Comments/Nonconformance

1 PCB8, PCB105 and PCB118 exhibited co-eluting isomers, results are qualified as estimated

2 The PCB internal standard (identified as a surrogate on the report) 13C12-PCB4, 13C12-PCB19, and 13C12-PCB54 recovered below (15, 9.7, & 24 respectively) acceptable limits (25-150), associated results are qualified as estimated

PAH and PCB data for _06/30/05_

Jackie Dan — 7/13/05

Reviewer — **Date of Review**

Checklist - Preliminary Analytical Report

✓	Reviewed COC and laboratory report ▪ No discrepancies between sample identification or sample date
✓	▪ All analysis performed
✓	QA/QC Data ▪ Information provided
NA	All QC within acceptable limit(s) ▪ Surrogates
✓	▪ Laboratory Control Sample
✓	▪ Method Blank
Comments/Nonconformance VOCs data for 6/30/05	

Jackie Dean
Reviewer

7/14/05
Date of Review

IIa Laboratory Testing Reports

Dredge Area 3
Sediment

ANALYTICAL REPORT

Indiana Harbor

Lot #: F5F080377

Jackie Doan

Environmental Quality Mgt., I
1800 Carillon Blvd
Cincinnati, OH 45240

SEVERN TRENT LABORATORIES, INC.

Mark J. Loeb
Project Manager

June 16, 2005

EXECUTIVE SUMMARY - Detection Highlights

F5F080377

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IH-1 06/07/05 12:35 001				
Mercury - TCLP	0.94 B	1	ug/L	SW846 7470A
Arsenic - TCLP	109 B	500	ug/L	SW846 6010B
Barium - TCLP	531	500	ug/L	SW846 6010B
Chromium - TCLP	18.6 B	25	ug/L	SW846 6010B
Lead - TCLP	44.0 B	250	ug/L	SW846 6010B
Benzene	17 J	50	ug/L	SW846 8260B
Flashpoint	>60		deg C	SW846 1010
pH (solid)	8.1	0.10	No Units	SW846 9045C
Percent Moisture	23.8	0.10	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

F5F080377

PARAMETER	ANALYTICAL METHOD
Extractable Organic Halides	SW846 9023
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Pensky-Martens Method for Determining Ignitability	SW846 1010
Percent Moisture	MCAWW 160.3 MOD
Phenolics	SW846 9066
PCBs by SW-846 8082	SW846 8082
Reactive Cyanide	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Soil and Waste pH	SW846 9045C
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F5F080377

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HC7X8	001	IH-1	06/07/05	12:35

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-1

TCLP GC/MS Volatiles

Lot-Sample #...:	F5F080377-001	**Work Order #...:**	HC7X81AK	**Matrix.....:**	SOLID
Date Sampled...:	06/07/05 12:35	**Date Received..:**	06/08/05		
Leach Date.....:	06/09/05	**Prep Date.....:**	06/13/05	**Analysis Date..:**	06/13/05
Leach Batch #..:	P516008	**Prep Batch #...:**	5164131		
Dilution Factor:	1				
% Moisture.....:	24	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	100	ug/L
1,1-Dichloroethene	ND	50	ug/L
2-Butanone	ND	50	ug/L
Chloroform	ND	50	ug/L
Carbon tetrachloride	ND	50	ug/L
1,2-Dichloroethane	ND	50	ug/L
Benzene	**17 J**	**50**	**ug/L**
Trichloroethene	ND	50	ug/L
Tetrachloroethene	ND	50	ug/L
Chlorobenzene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(71 - 138)
Toluene-d8	97	(81 - 121)
4-Bromofluorobenzene	102	(82 - 123)
1,2-Dichloroethane-d4	93	(83 - 126)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

J Estimated result. Result is less than RL.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-1

TCLP GC/MS Semivolatiles

Lot-Sample #...: F5F080377-001 **Work Order #...:** HC7X81AL **Matrix.....:** SOLID
Date Sampled...: 06/07/05 12:35 **Date Received..:** 06/08/05
Leach Date.....: 06/09/05 **Prep Date.....:** 06/10/05 **Analysis Date..:** 06/13/05
Leach Batch #..: P516006 **Prep Batch #...:** 5161532
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Pyridine	ND	100	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
3-Methylphenol & 4-Methylphenol	ND	100	ug/L
Hexachloroethane	ND	50	ug/L
Nitrobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
2,4,6-Trichloro-phenol	ND	50	ug/L
2,4,5-Trichloro-phenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	35	(10 - 86)
Phenol-d5	25	(10 - 95)
Nitrobenzene-d5	68	(50 - 104)
2-Fluorobiphenyl	64	(41 - 111)
Terphenyl-d14	71	(19 - 119)
2,4,6-Tribromophenol	71	(17 - 121)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Environmental Quality Mgt., Inc.

Client Sample ID: IH-1

GC Semivolatiles

Lot-Sample #...: F5F080377-001 **Work Order #...:** HC7X81AH **Matrix.....:** SOLID
Date Sampled...: 06/07/05 12:35 **Date Received..:** 06/08/05
Prep Date.....: 06/09/05 **Analysis Date..:** 06/10/05
Prep Batch #...: 5160554
Dilution Factor: 1
% Moisture.....: 24 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	43	ug/kg
Aroclor 1221	ND	43	ug/kg
Aroclor 1232	ND	43	ug/kg
Aroclor 1242	ND	43	ug/kg
Aroclor 1248	ND	43	ug/kg
Aroclor 1254	ND	43	ug/kg
Aroclor 1260	ND	43	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	90	(30 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-1

TCLP Metals

Lot-Sample #...: F5F080377-001 **Matrix.....:** SOLID
Date Sampled...: 06/07/05 12:35 **Date Received..:** 06/08/05
Leach Date.....: 06/09/05 **Leach Batch #..:** P516006

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5161401						
Arsenic	**109 B**	**500**	**ug/L**	**SW846 6010B**	**06/10-06/13/05**	**HC7X81AM**
		Dilution Factor: 1				
Barium	**531**	**500**	**ug/L**	**SW846 6010B**	**06/10-06/13/05**	**HC7X81AN**
		Dilution Factor: 1				
Cadmium	ND	25	ug/L	SW846 6010B	06/10-06/13/05	HC7X81AP
		Dilution Factor: 1				
Chromium	**18.6 B**	**25**	**ug/L**	**SW846 6010B**	**06/10-06/13/05**	**HC7X81AQ**
		Dilution Factor: 1				
Lead	**44.0 B**	**250**	**ug/L**	**SW846 6010B**	**06/10-06/13/05**	**HC7X81AR**
		Dilution Factor: 1				
Silver	ND	25	ug/L	SW846 6010B	06/10-06/13/05	HC7X81AT
		Dilution Factor: 1				
Selenium	ND	500	ug/L	SW846 6010B	06/10-06/13/05	HC7X81AU
		Dilution Factor: 1				
Prep Batch #...: 5164111						
Mercury	**0.94 B**	**1**	**ug/L**	**SW846 7470A**	**06/13/05**	**HC7X81AV**
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-1

General Chemistry

Lot-Sample #...: F5F080377-001 **Work Order #...:** HC7X8 **Matrix.....:** SOLID
Date Sampled...: 06/07/05 12:35 **Date Received..:** 06/08/05
% Moisture.....: 24

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	**8.1**	**0.10**	**No Units**	**SW846 9045C**	**06/09/05**	**5160328**
		Dilution Factor: 1				
Flashpoint	**>60**		**deg C**	**SW846 1010**	**06/14/05**	**5165385**
		Dilution Factor: 1				
Percent Moisture	**23.8**	**0.10**	**%**	**MCAWW 160.3 MOD**	**06/11-06/13/05**	**5162033**
		Dilution Factor: 1				
Reactive Cyanide	ND	0.33	mg/kg	SW846 7.3.3	06/13-06/14/05	5165352
		Dilution Factor: 1				
Reactive Sulfide	ND	29	mg/kg	SW846 7.3.4	06/13-06/14/05	5165149
		Dilution Factor: 1				
Total Extractable Organic Halogens	ND	65.6	mg/kg	SW846 9023	06/14/05	5165423
		Dilution Factor: 1				
Total Recoverable Phenolics	ND	6.6	mg/kg	SW846 9066	06/14/05	5165556
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

Dredge Area 3
Water.

ANALYTICAL REPORT

Indiana Harbor

Lot #: F5F080374

Jackie Doan

Environmental Quality Mgt., I
1800 Carillon Blvd
Cincinnati, OH 45240

SEVERN TRENT LABORATORIES, INC.

Mark J. Loeb
Project Manager

June 16, 2005

EXECUTIVE SUMMARY - Detection Highlights

F5F080374

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
IH-2 06/07/05 12:20 001				
Mercury	0.22	0.2	ug/L	SW846 7470A
Antimony	3.9 B	10	ug/L	SW846 6010B
Arsenic	6.5 B	10	ug/L	SW846 6010B
Chromium	55.5	10	ug/L	SW846 6010B
Copper	518 N*	25	ug/L	SW846 6010B
Lead	122 E	10	ug/L	SW846 6010B
Nickel	24.3 B	40	ug/L	SW846 6010B
Thallium	4.2 B	20	ug/L	SW846 6010B
Zinc	163	20	ug/L	SW846 6010B
Acenaphthene	5.7 J	10	ug/L	SW846 8270C
Chrysene	3.1 J	10	ug/L	SW846 8270C
Fluorene	3.3 J	10	ug/L	SW846 8270C
Naphthalene	17	10	ug/L	SW846 8270C
Phenanthrene	4.2 J	10	ug/L	SW846 8270C
Pyrene	4.4 J	10	ug/L	SW846 8270C
Benzene	0.90 J	1.0	ug/L	SW846 8260B
Toluene	14	1.0	ug/L	SW846 8260B
Total Solids	470	5.0	mg/L	MCAWW 160.3
pH (liquid)	7.9	0.10	No Units	SW846 9040

ANALYTICAL METHODS SUMMARY

F5F080374

PARAMETER	ANALYTICAL METHOD
pH Aqueous	SW846 9040
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Total Residue (TS)	MCAWW 160.3
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F5F080374

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HC7XT	001	IH-2	06/07/05	12:20

NOTE(S):

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Environmental Quality Mgt., Inc.

Client Sample ID: IH-2

GC/MS Volatiles

Lot-Sample #...: F5F080374-001 **Work Order #...:** HC7XT1CP **Matrix.....:** WATER
Date Sampled...: 06/07/05 12:20 **Date Received..:** 06/08/05
Prep Date.....: 06/13/05 **Analysis Date..:** 06/13/05
Prep Batch #...: 5165232
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acrolein	ND	10	ug/L
Acrylonitrile	ND	10	ug/L
Benzene	**0.90 J**	**1.0**	**ug/L**
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Dichlorobromomethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	2.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**14**	**1.0**	**ug/L**
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	92	(75 - 126)
Dibromofluoromethane	86	(60 - 147)
1,2-Dichloroethane-d4	86	(71 - 138)
4-Bromofluorobenzene	90	(71 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-2

GC/MS Semivolatiles

Lot-Sample #...: F5F080374-001 **Work Order #...:** HC7XT1CQ **Matrix.....:** WATER
Date Sampled...: 06/07/05 12:20 **Date Received..:** 06/08/05
Prep Date.....: 06/10/05 **Analysis Date..:** 06/13/05
Prep Batch #...: 5161540
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**5.7 J**	**10**	**ug/L**
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Chrysene	**3.1 J**	**10**	**ug/L**
Dibenzo(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	**3.3 J**	**10**	**ug/L**
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Naphthalene	**17**	**10**	**ug/L**
Phenanthrene	**4.2 J**	**10**	**ug/L**
Pyrene	**4.4 J**	**10**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	39	(10 - 115)
Phenol-d5	28	(10 - 115)
Nitrobenzene-d5	83	(22 - 115)
2-Fluorobiphenyl	75	(18 - 115)
2,4,6-Tribromophenol	75	(10 - 118)
Terphenyl-d14	66	(10 - 115)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-2

GC Semivolatiles

Lot-Sample #...: F5F080374-001 **Work Order #...:** HC7XT1AD **Matrix.....:** WATER
Date Sampled...: 06/07/05 12:20 **Date Received..:** 06/08/05
Prep Date.....: 06/10/05 **Analysis Date..:** 06/13/05
Prep Batch #...: 5161538
Dilution Factor: 1 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	55	(30 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: IH-2

TOTAL Metals

Lot-Sample #...: F5F080374-001 Matrix.....: WATER
Date Sampled...: 06/07/05 12:20 Date Received..: 06/08/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5160093						
Mercury	0.22	0.2	ug/L	SW846 7470A	06/09/05	HC7XT1AV
		Dilution Factor: 1				
Prep Batch #...: 5160310						
Antimony	3.9 B	10	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AG
		Dilution Factor: 1				
Arsenic	6.5 B	10	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AH
		Dilution Factor: 1				
Beryllium	ND	5	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AJ
		Dilution Factor: 1				
Cadmium	ND	5	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AK
		Dilution Factor: 1				
Chromium	55.5	10	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AL
		Dilution Factor: 1				
Copper	518 N*	25	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AM
		Dilution Factor: 1				
Lead	122 E	10	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AN
		Dilution Factor: 1				
Nickel	24.3 B	40	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AP
		Dilution Factor: 1				
Selenium	ND	15	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AQ
		Dilution Factor: 1				
Silver	ND	10	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AR
		Dilution Factor: 1				
Thallium	4.2 B	20	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AT
		Dilution Factor: 1				
Zinc	163	20	ug/L	SW846 6010B	06/09-06/10/05	HC7XT1AU
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

E Matrix interference.

Environmental Quality Mgt., Inc.

Client Sample ID: IH-2

General Chemistry

Lot-Sample #...: F5F080374-001 Work Order #...: HC7XT Matrix.....: WATER
Date Sampled...: 06/07/05 12:20 Date Received..: 06/08/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.9	0.10	No Units	SW846 9040	06/09/05	5160325
		Dilution Factor: 1				
Total Solids	470	5.0	mg/L	MCAWW 160.3	06/14-06/15/05	5166190
		Dilution Factor: 1				

Dredge Area 2 & 1
Sediment

SEVERN TRENT STL

STL St. Louis
13715 Rider Trail North
Earth City, MO 63045

Tel: 314 298 8566 Fax: 314 298 8757
www.stl-inc.com

ANALYTICAL REPORT

Indiana Harbor

Lot #: F5F210166

Jackie Doan

Environmental Quality Mgt., I
1800 Carillon Blvd
Cincinnati, OH 45240

SEVERN TRENT LABORATORIES, INC.

David Rekosh
Project Manager

June 28, 2005

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Case Narrative
LOT NUMBER: F5F210166

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on June 21, 2005. This sample is associated with your Indiana Harbor project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

PCBs by 8082

There was insufficient sample volume to perform MS/MSD analysis. LCS/LCSD were performed to demonstrate accuracy and replicate precision.

The sample was analyzed at a dilution due to the presence of matrix interferences. The reporting limit has been adjusted for the dilution. When performing a sample dilution, the surrogates were diluted below reliable detection, making QC recoveries unreliable.

The method requires 3-5 peaks be used for PCB quantitation. Due to the present of matrix interferences in the sample, only 3 peaks were used for quantitation. Results are reported with this narrative.

Affected Samples:
F5F210166 (1): AREA 2

EXECUTIVE SUMMARY - Detection Highlights

F5F210166

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
AREA 2 06/20/05 13:45 001				
Aroclor 1260	870 D	600	ug/kg	SW846 8082
Barium - TCLP	570	500	ug/L	SW846 6010B
Benzene	84	50	ug/L	SW846 8260B
Flashpoint	>60		deg C	SW846 1010
Reactive Sulfide	1300	41	mg/kg	SW846 7.3.4
pH (solid)	8.0	0.10	No Units	SW846 9045C
Percent Moisture	45.3	0.10	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

F5F210166

PARAMETER	ANALYTICAL METHOD
Extractable Organic Halides	SW846 9023
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Pensky-Martens Method for Determining Ignitability	SW846 1010
Percent Moisture	MCAWW 160.3 MOD
Phenolics	SW846 9066
PCBs by SW-846 8082	SW846 8082
Reactive Cyanide	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Soil and Waste pH	SW846 9045C
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F5F210166

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HD2LH	001	AREA 2	06/20/05	13:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Environmental Quality Mgt., Inc.

Client Sample ID: AREA 2

TCLP GC/MS Volatiles

Lot-Sample #...: F5F210166-001 **Work Order #...:** HD2LH1AH **Matrix.....:** SOLID
Date Sampled...: 06/20/05 13:45 **Date Received..:** 06/21/05
Leach Date.....: 06/22/05 **Prep Date.....:** 06/24/05 **Analysis Date..:** 06/24/05
Leach Batch #..: P517310 **Prep Batch #...:** 5175119
Dilution Factor: 2
% Moisture.....: 45 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	100	ug/L
1,1-Dichloroethene	ND	50	ug/L
2-Butanone	ND	50	ug/L
Chloroform	ND	50	ug/L
Carbon tetrachloride	ND	50	ug/L
1,2-Dichloroethane	ND	50	ug/L
Benzene	**84**	**50**	**ug/L**
Trichloroethene	ND	50	ug/L
Tetrachloroethene	ND	50	ug/L
Chlorobenzene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(71 - 138)
Toluene-d8	110	(81 - 121)
4-Bromofluorobenzene	98	(82 - 123)
1,2-Dichloroethane-d4	97	(83 - 126)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Environmental Quality Mgt., Inc.

Client Sample ID: AREA 2

TCLP GC/MS Semivolatiles

Lot-Sample #...: F5F210166-001 **Work Order #...:** HD2LH1AJ **Matrix.....:** SOLID
Date Sampled...: 06/20/05 13:45 **Date Received..:** 06/21/05
Leach Date.....: 06/21/05 **Prep Date.....:** 06/22/05 **Analysis Date..:** 06/23/05
Leach Batch #..: P517211 **Prep Batch #...:** 5173433
Dilution Factor: 1
% Moisture.....: 45 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Pyridine	ND	100	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
3-Methylphenol & 4-Methylphenol	ND	100	ug/L
Hexachloroethane	ND	50	ug/L
Nitrobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
2,4,6-Trichloro-phenol	ND	50	ug/L
2,4,5-Trichloro-phenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	41	(10 - 86)
Phenol-d5	28	(10 - 95)
Nitrobenzene-d5	76	(50 - 104)
2-Fluorobiphenyl	73	(41 - 111)
Terphenyl-d14	76	(19 - 119)
2,4,6-Tribromophenol	76	(17 - 121)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Environmental Quality Mgt., Inc.

Client Sample ID: AREA 2

GC Semivolatiles

Lot-Sample #...: F5F210166-001 **Work Order #...:** HD2LH1AG **Matrix.....:** SOLID
Date Sampled...: 06/20/05 13:45 **Date Received..:** 06/21/05
Prep Date.....: 06/22/05 **Analysis Date..:** 06/24/05
Prep Batch #...: 5173172
Dilution Factor: 10
% Moisture.....: 45 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	600	ug/kg
Aroclor 1221	ND	600	ug/kg
Aroclor 1232	ND	600	ug/kg
Aroclor 1242	ND	600	ug/kg
Aroclor 1248	ND	600	ug/kg
Aroclor 1254	ND	600	ug/kg
Aroclor 1260	**870 D**	**600**	**ug/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	DIL	(30 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

Environmental Quality Mgt., Inc.

Client Sample ID: AREA 2

TCLP Metals

Lot-Sample #...: F5F210166-001
Date Sampled...: 06/20/05 13:45 **Date Received..:** 06/21/05
Leach Date.....: 06/21/05 **Leach Batch #..:** P517211
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5173145						
Mercury	ND	10	ug/L	SW846 7470A	06/22-06/23/05	HD2LH1AT
		Dilution Factor: 1				
Prep Batch #...: 5173194						
Arsenic	ND	500	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AK
		Dilution Factor: 1				
Barium	**570**	**500**	**ug/L**	**SW846 6010B**	**06/22-06/23/05**	**HD2LH1AL**
		Dilution Factor: 1				
Cadmium	ND	25	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AM
		Dilution Factor: 1				
Chromium	ND	50	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AN
		Dilution Factor: 1				
Lead	ND	250	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AP
		Dilution Factor: 1				
Silver	ND	50	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AQ
		Dilution Factor: 1				
Selenium	ND	500	ug/L	SW846 6010B	06/22-06/23/05	HD2LH1AR
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Environmental Quality Mgt., Inc.

Client Sample ID: AREA 2

General Chemistry

Lot-Sample #...: F5F210166-001 **Work Order #...:** HD2LH **Matrix.....:** SOLID
Date Sampled...: 06/20/05 13:45 **Date Received..:** 06/21/05
% Moisture.....: 45

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	8.0	0.10	No Units	SW846 9045C	06/24/05	5178651
		Dilution Factor: 1				
Flashpoint	>60		deg C	SW846 1010	06/22/05	5173246
		Dilution Factor: 1				
Percent Moisture	45.3	0.10	%	MCAWW 160.3 MOD	06/21-06/22/05	5172305
		Dilution Factor: 1				
Reactive Cyanide	ND	0.46	mg/kg	SW846 7.3.3	06/24-06/27/05	5178453
		Dilution Factor: 1				
Reactive Sulfide	1300	41	mg/kg	SW846 7.3.4	06/24-06/27/05	5178451
		Dilution Factor: 1				
Total Extractable Organic Halogens	ND	91.4	mg/kg	SW846 9023	06/21/05	5172427
		Dilution Factor: 1				
Total Recoverable Phenolics	ND	9.1	mg/kg	SW846 9066	06/27/05	5178653
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

DREDGE AREA 2 & 1
WATER

SEVERN TRENT STL

STL St. Louis
13715 Rider Trail North
Earth City, MO 63045

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ANALYTICAL REPORT

Indiana Harbor

Lot #: F5F240217

Jackie Doan

Environmental Quality Mgt., I
1800 Carillon Blvd
Cincinnati, OH 45240

SEVERN TRENT LABORATORIES, INC.

David Rekosh
Project Manager

July 7, 2005

Case Narrative
LOT NUMBER: **F5F240217**

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on June 24, 2005. This sample is associated with your Indiana Harbor project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Semi-Volatile Organic Compounds by 8270C, and PCBs by 8082

There was insufficient sample volume to perform MS/MSD analysis. LCS/LCSD were performed to demonstrate accuracy and replicate precision.

Affected Samples:
F5F240217 (1): AREA#2

Volatile Organic Compounds by 8260B

According to the COC, sample was presumed to be preserved to a pH < 2. Due to the potential loss of volatile constituents, VOA vials are not checked for pH preservation until the time of analysis. Sample pH was not less than 2. Sample was analyzed within the 7 day, unpreserved, holding time.

Affected Samples:
F5F240217 (1): AREA#2

Metals by 6010B

The serial dilution for Zinc is outside of method acceptance criteria indicating a potential matrix interference. All associated sample results are flagged accordingly.

Affected Samples:
F5F240217 (1): AREA#2

EXECUTIVE SUMMARY - Detection Highlights

F5F240217

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
AREA#2 06/23/05 07:58 001				
Antimony	2.8 B	10	ug/L	SW846 6010B
Arsenic	5.9 B	10	ug/L	SW846 6010B
Chromium	23.3	10	ug/L	SW846 6010B
Copper	111	25	ug/L	SW846 6010B
Lead	98.3	10	ug/L	SW846 6010B
Nickel	16.5 B	40	ug/L	SW846 6010B
Zinc	102 E	20	ug/L	SW846 6010B
1,1,2-Trichloroethane	0.64 J	1.0	ug/L	SW846 8260B
Total Solids	890	5.0	mg/L	MCAWW 160.3
pH (liquid)	8.0	0.10	No Units	SW846 9040

ANALYTICAL METHODS SUMMARY

P5F240217

PARAMETER	ANALYTICAL METHOD
pH Aqueous	SW846 9040
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Total Residue (TS)	MCAWW 160.3
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F5F240217

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HECF3	001	AREA#2	06/23/05	07:58

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Environmental Quality Mgt., Inc.

Client Sample ID: AREA#2

GC/MS Volatiles

Lot-Sample #...: F5F240217-001 **Work Order #...:** HECF31AU **Matrix.....:** WATER
Date Sampled...: 06/23/05 07:58 **Date Received..:** 06/24/05
Prep Date.....: 06/26/05 **Analysis Date..:** 06/26/05
Prep Batch #...: 5178130
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acrolein	ND	10	ug/L
Acrylonitrile	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Dichlorobromomethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	2.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	**0.64 J**	**1.0**	**ug/L**
Trichloroethene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	99	(75 - 126)
Dibromofluoromethane	80	(60 - 147)
1,2-Dichloroethane-d4	85	(71 - 138)
4-Bromofluorobenzene	105	(71 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Quality Mgt., Inc.

Client Sample ID: AREA#2

GC/MS Semivolatiles

Lot-Sample #...: F5F240217-001 **Work Order #...:** HECF32AV **Matrix.....:** WATER
Date Sampled...: 06/23/05 07:58 **Date Received..:** 06/24/05
Prep Date.....: 06/30/05 **Analysis Date..:** 07/01/05
Prep Batch #...: 5181158
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L
Dibenzo(a,h)anthracene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	41	(10 - 115)
Phenol-d5	30	(10 - 115)
Nitrobenzene-d5	78	(22 - 115)
2-Fluorobiphenyl	74	(18 - 115)
2,4,6-Tribromophenol	87	(10 - 118)
Terphenyl-d14	84	(10 - 115)

Environmental Quality Mgt., Inc.

Client Sample ID: AREA#2

GC Semivolatiles

Lot-Sample #...: F5F240217-001 **Work Order #...:** HECF31AD **Matrix.....:** WATER
Date Sampled...: 06/23/05 07:58 **Date Received..:** 06/24/05
Prep Date.....: 06/27/05 **Analysis Date..:** 06/28/05
Prep Batch #...: 5178469
Dilution Factor: 1 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	102	(30 - 150)

Environmental Quality Mgt., Inc.

Client Sample ID: AREA#2

TOTAL Metals

Lot-Sample #...: F5F240217-001 **Matrix.....:** WATER
Date Sampled...: 06/23/05 07:58 **Date Received..:** 06/24/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5178181						
Mercury	ND	0.2	ug/L	SW846 7470A	06/27-06/28/05	HECF31AT
		Dilution Factor: 1				
Prep Batch #...: 5178264						
Antimony	**2.8 B**	**10**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AE**
		Dilution Factor: 1				
Arsenic	**5.9 B**	**10**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AF**
		Dilution Factor: 1				
Beryllium	ND	5	ug/L	SW846 6010B	06/27-06/29/05	HECF31AG
		Dilution Factor: 1				
Cadmium	ND	5	ug/L	SW846 6010B	06/27-06/29/05	HECF31AH
		Dilution Factor: 1				
Chromium	**23.3**	**10**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AJ**
		Dilution Factor: 1				
Copper	**111**	**25**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AK**
		Dilution Factor: 1				
Lead	**98.3**	**10**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AL**
		Dilution Factor: 1				
Nickel	**16.5 B**	**40**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AM**
		Dilution Factor: 1				
Selenium	ND	15	ug/L	SW846 6010B	06/27-06/29/05	HECF31AN
		Dilution Factor: 1				
Silver	ND	10	ug/L	SW846 6010B	06/27-06/29/05	HECF31AP
		Dilution Factor: 1				
Thallium	ND	20	ug/L	SW846 6010B	06/27-06/29/05	HECF31AQ
		Dilution Factor: 1				
Zinc	**102 E**	**20**	**ug/L**	**SW846 6010B**	**06/27-06/29/05**	**HECF31AR**
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

E Matrix interference.

Environmental Quality Mgt., Inc.

Client Sample ID: AREA#2

General Chemistry

Lot-Sample #...: F5F240217-001 **Work Order #...:** HECF3 **Matrix.....:** WATER
Date Sampled...: 06/23/05 07:58 **Date Received..:** 06/24/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	**8.0**	**0.10**	**No Units**	**SW846 9040**	**06/29/05**	**5180153**
		Dilution Factor: 1				
Total Solids	**890**	**5.0**	**mg/L**	**MCAWW 160.3**	**06/29-06/30/05**	**5181308**
		Dilution Factor: 1				

IIb and C Fill Borrow Sites

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
(513) 825-7500
fax (513) 825-7495
www.eqm.com

March 29, 2005

Mr. Dick Albert
Area Engineer
U.S. Army Corps of Engineers
Chicago District, Calumet Area Office
906 Griffith Boulevard
Griffith, IN 46319

Re: Contract No. W912P6-04-C-0006
IHC CDF Obstruction Removal
Specification Section 02231
Borrow Area Identification Statement (Item 1)
Sampling Plan for Earth Fill Borrow Sites (Item 2)
Analytical Test Results for Earth Fill Borrow Sites (Item 3)
Final Report for Earth Fill Borrow Sites (Item 4)
EQ PN 030244

Dear Mr. Albert:

Environmental Quality Management, Inc. (EQ) respectfully submits this letter as the Borrow Area Identification Statement per Specification Section 02231, Part 1.3 as well as the Sampling Plan for Earth Fill Borrow Sites, Analytical Test Results for Earth Fill Borrow Sites, and Final Report for Earth Fill Borrow Sites.

EQ proposes to utilize Beemsterboer Slag Corporation to provide the following:

- INDOT or IDOT Course Aggregate 1 (3x2) and INDOT or IDOT Coarse Aggregate 53s for preparation of the office trailer and decontamination area.
- The CA1 and 53s from the office trailer and decontamination area will be used to fill vaults and depressions as the project is reaching completion.
- EQ will also utilize ¼" x 0 slag sand for the development of berms for our lined dredge spoils management area. Once the dredge spoils are removed, the slag sand will be spread over the immediately adjacent area to provide level terrain.

Beemsterboer obtains their slag from ISPAT-Inland Steel, Hammond, Indiana. Therefore, there are no quarries involved. Additionally, the Sampling Plan for Earth Fill Borrow Sites, Analytical Test Results for Earth Fill Borrow Sites, and Final Report for Earth Fill Borrow Sites become not applicable since Beemsterboer is an approved supplier of aggregate to the US Army Corps of Engineers (USACE). An MSDS on the slag material is attached.

EQ proposes to utilize Material Service Corporation, A General Dynamics Company, Thornton, Illinois Quarry to provide INDOT CA1 or IDOT CA1 (either have been indicated verbally as acceptable) limestone. This limestone will be used for filling of the dredge areas back to elevation of adjacent sediment following cutting and plugging of

pipes from the canal. The Material Service Corporation, Thornton, IL quarry is a USACE approved quarry and is the same quarry that EQ obtained fill material for the SSP Wall Stabilization effort recently completed. Therefore, the Sampling Plan for Earth Fill Borrow Sites, Analytical Test Results for Earth Fill Borrow Sites, and Final Report for Earth Fill Borrow Sites become not applicable. A MSDS for limestone and an analytical report indicating the limestone pH as 8.56 are attached.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

John Wentz, P.E.
Sr. Project Manager

attachments

BEEMSTERBOER SLAG CORP.

OFFICE
16807 South Park Avenue
P.O. Box 280
South Holland, IL 60473

PHONES
773 – 785-6000
708 – 339-6677
Fax 708 – 339-7065

SHOPS
3411 Sheffield Avenue
Hammond, IN 46327

PHONES
219 – 931-7462
773 – 734-0108
Fax 219 – 931-7463

MATERIAL SAFETY DATE SHEET

BLAST FURNACE SLAG

Beemsterboer Slag Corp.
3411 Sheffield Avenue
Hammond, IN 46327

Emergency Telephone: (219) 931-7462
Information Telephone: (219) 931-7462
Preparation Date: June 8, 2004

SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Ingredients	CAS Number	Exposure Limits (Milligrams Per Cubic Meter) OSHA PEL	ACGIHTLV	NIOSH REL	App %
Lime (CaO)	Not Applicable	15**	10**	None**	40
Silica (SiO2)	Not Applicable	15**	10**	None**	40
Magnesia (MGO)	Not Applicable	15**	10**	None**	10
Alumina (AL203)	Not Applicable	15**	10**	None**	8
Sulfur (S) *	Not Applicable	15**	10**	None**	2
Iron Oxide (FE203)	Not Applicable	15**	10**	None**	1
Manganous Oxide (As Manganese)	Not Applicable	5(C)	5	5(C)	1

** As Nuisance Dust
(C) Denotes Ceiling Exposure

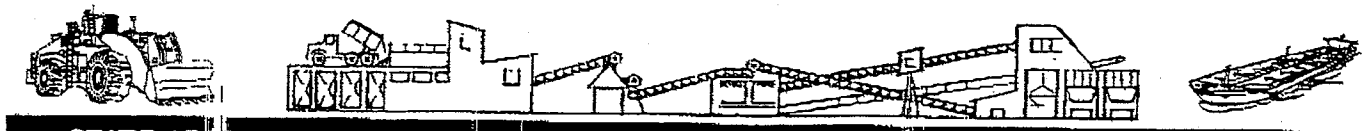
Blast furnace slag is the nonmetallic product consisting essentially of Silicates and Aluminosilicates of Calcium and other bases that is produced in a molten condition with Iron in a blast furnace.

SECTION III - PHYSICAL /CHEMICAL CHARACTERISTICS

Melting Point F(C): About 2550 (1400)
Vapor Pressure: Not Applicable
Vapor Density (Air =1): Not Applicable
Solubility in Water: Not Soluble

Specific Gravity (Water -1): Greater than 1
% Volatile by Volume %: Not Applicable
Evaporation Rate: Not Applicable

Appearance and Odor: When molten, reddish to yellow color and viscous; when solid, gray with vesicular structure; slight sulfur odor.



SECTION IV - REACTIVITY DATA

Stability: Considered Stable
Incompatibility: Not Applicable
Hazardous Polymerization: Not Applicable
Hazardous Decomposition Products: None
Conditions to Avoid: Blast furnace slag may release compounds of Sulfur, such as Hydrogen Sulfide and /or Sulfur Dioxide, when cooled.

SECTION V - HEALTH HAZARD DATA

Effect of Overexposure: Acute dust may cause mechanical irritation to the eyes, nose or throat. Hydrogen Sulfide and Sulfur Dioxide, which may accompany blast furnace slag, can cause upper throat and nose irritation.
Chronic Systemic Effects Are Unknown.
Emergency and First Aid Procedures: In the event of acute exposure to dust, remove victim to Fresh air and obtain assistance.
Medical Conditions Aggravated by Exposure: Inhalation of dust may aggravate a preexisting lung condition
Carcinogenicity: Blast furnace slag or its constituents have not been identified as carcinogenic by the National Toxicology Program (NTP), The International Agency For Research On Cancer (IARC), OSHA.

SECTION VI - PRECAUTIONS FOR SAFE HANDLING AND USE

Solid material can be reclaimed.
Waste disposal method: Not Applicable
Precautions to be taken in handling and storing: No Special Considerations

SECTION VII - REGULATORY INFORMATION

Sara Section 313: This material is not listed as a hazardous substance
Resource Conservation and Recovery Act (RCRA): This material is not considered hazardous.
Toxic Substance Control Act (TSCA): This material is not listed as a hazardous waste.
Comprehensive Environmental Response Compensation and Liability Act (CERCLA): This material is not listed as a hazardous material

DOT: N/A **PROPER SHIPPING NAME: N/A** **HAZARD CLASS: N/A**

Material Service Corporation
A GENERAL DYNAMICS COMPANY
222 North LaSalle
Chicago, IL 60601-1087
1-312-372-3800

MATERIAL SAFETY DATA SHEET

I. Material Identification And Use

Product Name: Limestone CAS#: 1317-65-3
Common Names: Calcium Carbonate, Calcite
Chemical Name: CaCo3
Product Use: Used in the aggregate, metallurgical and agricultural industries
Product may contain respirable silica particles. CAS#: 14808-60-7

II. Ingredients And Recommended Occupational Exposure Limits

Composition	Typical % Weight	Exposure Limits	
		OSHA PEL	ACGIH TLV
Calcium Carbonate	99+	15mg/m3 Total Dust 5mg/m3 Respirable Dust	10mg/m3 Total Dust 5mg/m3 Respirable Dust
Silica (Quartz)	<1.0	0.1mg/m3 TWA for Respirable Dust	0.1mg/m3 TWA for Respirable Dust

III. Physical Data

Boiling Point: 1652°F
Specific Gravity: 2.7-2.95
Vapor Pressure: N/A
Melting Point: N/A
Vapor Density: N/A
Evaporation Rate: N/A
Stability: Stable
Solubility in water: Negligible
Appearance: White to light gray – odorless solid

IV. Fire And Explosion Hazard Data

Flashpoint: N/A
Flammable Limits: N/A
Extinguishing Media: N/A
LEL: N/A UEL: N/A
Unusual Fire and Explosion Hazards: Limestone is neither a fire nor explosion hazard.

V. Reactivity Data

Stability: Stable
Conditions to Avoid: None
Hazardous Decomposition: None
Hazardous Polymerization: None
Incompatibles: Limestone will dissolve in hydrofluoric acid and produce a corrosive gas – silicon tetra fluoride. Resulting fumes should be avoided.

VI. Health Hazard Information

Limestone is the technical or agricultural grade of calcium carbonate. The material is essentially non-toxic. Extremely high concentrations of calcium carbonate dust are usually self-limiting due to the nuisance conditions it may create such as coughing, sneezing and nasal irritation. Limestone dust may, however, contain respirable silica particles. Silica is capable of causing silicosis if inhaled in high enough concentrations over an extended period of time. Exposure to excessive concentrations may cause transient eye irritation.

Carcinogenicity: None Identified

Routes of Entry: Inhalation? YES Skin? NO Ingestion? YES

Emergency and First Aid Procedures:

Eyes- Not anticipated to pose an acute or significant hazard. If irritation occurs wash eyes with large amounts of water, obtain medical attention if irritation persists.

Inhalation - Not anticipated to pose an acute or significant hazard. If irritation occurs, remove to an area of fresh air; give oxygen or CPR if necessary. Seek medical attention for treatment as needed

Ingestion – Not anticipated to pose an acute or significant hazard. If irritation occurs, give large amounts of water and seek medical attention as needed.

Skin Contact – Not anticipated to pose an acute or significant hazard. If skin is previously irritated, wash skin with plenty of soap and water for at least 15 minutes.

VII. Precautions For Safe Handling And Use

Respirable dust may be generated during processing, handling, and storage.

Spillage, where dust may be generated, may overexpose cleanup personnel to respirable dust. Wetting of the material and/or use of respiratory protective equipment may be necessary. Avoid dry sweeping.

Waste Disposal Method: Dispose of material in accordance with Federal, State, and Local regulations.

VIII. Control Measures

Ventilation: Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.

Eye and Skin Protection: Wear long sleeve shirt and pants, Safety goggles and proper gloves.

Respiratory Protection: A respirator with dust/mist filter is recommended. If airborne concentration exceeds TLV, a self-contained breathing apparatus is advised.

UPDATED: June 5, 2001

Material Service Corporation
Safety Department

The information contained in this Material Safety Data Sheet (MSDS) was obtained from sources, which we believe are reliable. However, the information is provided without any representation of warranty, expressed or implied, regarding the accuracy or correctness.

The conditions or methods of handling, storing, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with handling, storage, use or disposal of the products.

FLOOD TESTING LABORATORIES, INC.

PHONE. (AREA CODE 312) 721-2200

1945 EAST 87TH STREET
CHICAGO, ILLINOIS 60617

REPORT OF TEST OF

Tests of Limestone Aggregate

LABORATORY NO. 960003 DATE January 16, 1996

SAMPLED BY: Samples delivered by your representative January 5, 1996

SAMPLED FROM: AMOUNT

MANUFACTURED BY:

CONTRACTOR: Material Service Corp.
222 N. LaSalle Street
Chicago, IL 60601
Attn: Mr. Brian Rice

REMARKS:

Material: CA-06 Crushed Limestone

Specimen:

	Test Method	
Resistivity, Ω-cm	AASHTO T288	5,205
pH	AASHTO T289	8.56
Water Soluble Sulfates, mg/kg	AASHTO T290	158
Water Soluble Chloride, mg/kg	AASHTO T291	99

RESPECTFULLY SUBMITTED:

FLOOD TESTING LABORATORIES, INC.

IId Closure Report

CONSTRUCTION DOCUMENTATION REPORT

CLOSURE REPORT –SITE ASSESSMENT

VOLUME 2 of 4

INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY OBSTRUCTION REMOVAL

Prepared for:

U.S. Army Corps of Engineers
Chicago District
Calumet Area Office
906 Griffith Blvd.
Griffith, IN 46319

Contract No.: W912P6-04-C-0006
Specification Section: 02115
Submittal No.: 02115-9

Prepared by:

Environmental Quality Management, Inc.
1800 Carillon Blvd.
Cincinnati, Ohio 45240

January 2006

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Section		Location
I	As-Built Drawings (Specification 01100)	Attached Separately
II	Field and Laboratory Test Data	
	a. Laboratory Testing Reports (Specification 02115) for Canal Dredge Sediment & Water Analysis	Volume 1 of 4
	b. Analytical Test Results for Fill Borrow Sites (Specification 02231)	Volume 1 of 4
	c. Final Report for Fill Borrow Sites (Specification 02231)	Volume 1 of 4
	d. Closure Report – Site Assessment Report (Specification 02115)	Volume 2 of 4
II	Construction Quality Assurance Control Plan	
	a. Final Construction Quality Control Plan (Specification 01451)	Volume 1of 4
	b. Daily Construction Quality Control Reports and Checklists (Specification 01451)	Volume 3 of 4
IV	Air Monitoring Summary (Specification 01355)	Volume 4 of 4

Closure Report (Site Assessment Report)

Description of Work.

Three primary objectives were included in this work.

1) Clear approximately 10.6 acres of the southern portion of the site from the canal wall north and remove identified obstructions, pits, vaults, pipes, hydrants, and other miscellaneous items.
2) Remove bumpers along the face of the wall.
3) Remove 10-foot sections from 12 pipes in the Lake George Canal adjacent to the existing sheet pile wall (ultimately, 13 pipes were removed).

Clearing was performed utilizing excavator and small dozer. The excavator was used to remove debris and other material from the canal wall north approximately 30 feet in the zone where heavy equipment was prohibited. The excavator was also used to assist in excavation to expose pipes, tree removal, bollard removal, and demolition of obstructions. The dozer was used to stage removed debris into piles until the piles were ready for transport to the Debris Stockpile.

Bumpers were removed by personnel located on floating work platform and assisted by 20-ton cherry picker crane based on land side with boom of sufficient length to maintain 30-foot clearance from canal wall. Workers used torches to cut bracing/clips of bumpers to canal wall. Lifting slings were attached to the bumpers and lifted by the cherry picker once they were cut free. The bumpers were staged, collected, then disposed of in the Debris Stockpile.

Pipe segments in the Lake George Canal were removed from three distinct areas.

- Dredge Area 1 – 10 pipes removed
- Dredge Area 2 – 4 pipes removed
- Dredge Area 3 – 1 pipe removed

Work was initiated at Dredge Area 3. A 16-foot by 32-foot coffer dam of driven steel sheet piling was installed around the pipe. A 45-ton crane with clam shell bucket was used to excavate the dredge material from the coffer dam area and expose the pipe. The dredged material was allowed to drain over the excavation area, then deposited into a temporarily constructed dredge containment cell. The dredge containment cell was lined and provided a drainage mat that was placed under vacuum. As the wet dredge material was placed into the cell, the vacuum collected the free water and transferred it to a water collection tank. Upon exposure of the pipe in the canal, divers entered into the coffer dam and cut the pipe on the canal side of the coffer dam, approximately 12-feet away from the canal wall. All pipe from the cut location toward the canal wall was removed. The remaining opening was plugged with a mechanical compression plug. The remaining cut location was video taped and surveyed. Once accepted by the COR, the excavation was backfilled to original grade with Number 2 limestone. The coffer dam

was extracted and relocated from Dredge Area 3 to Dredge Area 2. The removed pipe segments were disposed of in the on-site Debris Stockpile.

The pipe removal in Dredge Area 2 was performed in the same manner as the work in Dredge Area 3. Four pipes were removed from Dredge Area 2.

Dredge Area 1 work was initiated in the same manner as work in Dredge Areas 3 and 2. As the pipes were exposed, undermining of fill from the land side of the canal wall was observed. This resulted in a depression on the land side of the canal wall and an increased volume of sediment removed from within the coffer dam. It was determined that the pipes in the area of Dredge Area 1 had been installed utilizing a pipe installation pit that had been isolated with driven sheet piling and backfilled upon completion of the pipe installation. Work was discontinued until a modification was agreed upon to excavate the material from the pipe installation pit to eliminate undermining. The pipe installation pit was partially excavated to a natural angle of repose to prevent further undermining of the fill material under the existing canal wall and into the coffer dam. The excavated fill from the pipe installation pit was staged adjacent to the pit for reuse as fill material upon completion of the work. Excavation in the Dredge Area 1 coffer dam continued to expose the pipes. As the excavation approached the south side of the coffer dam, undermining of sediment from the canal was experienced. This undermining prevented the divers from obtaining access to cutting the pipes. As a result, a second modification was issued to implement an alternative pipe cutting method. A cable saw was set up above the water line and used to cut the pipes. The cable saw was successful in cutting all 10 pipes. The remaining open ends were not plugged due to inaccessibility resulting from continued undermining of sediment from the canal on the south side of the coffer dam. The pipes were surveyed, the coffer dam excavation backfilled with Number 2 limestone to surrounding sediment elevation, and the coffer dam sheet piling removed. The pipe installation pit was then backfilled with the staged excavation spoils. This area was not provided supplemental fill to bring the area back to grade with surrounding, undisturbed grades.

As indicated above, 10 pipes were removed from Dredge Area 1; 4 pipes from Dredge Area 2; and 1 pipe from Dredge Area 3. Tables 1.1 and 1.2 summarize the pipes and obstructions removed. This table provides pipe location including survey coordinates, brief description of the removed item, date removed, correlation number with contract and as-built drawings, and depths.

A total of 872.40 Ton of sediment was removed from the canal and disposed of. The sediment was disposed at the following location:

Forest Lawn Landfill, Inc.
8239 West Forest Lawn Road
Three Oaks, MI 49128
(269) 756-9252

A total of 4,500 gallons of water was collected from the sediment dewatering operations. Water was collected from all 3 dredging operations and disposed of at one time. Wastewater was collected and disposed of at:

Beaver Oil
6037 Lenzi Avenue
Hodgkins, Illinois 60525
phone # 708-354-4040

Figure CDR-1 is a site plan showing the pipe locations of the pipes cut in the canal as well as those cut during the clearing and obstructions removal on the surface, north of the canal wall and south of the southern access road.

TABLE 1.1
SUMMARY OF REMOVED PIPES & OBSTRUCTIONS
ON LAND SIDE OF CANAL WALL

Number	Northing	Easting	Raw Desc
9753	1510771.54	389421.61	PIPE
9756	1510758.84	389591.97	BOLLARD
9757	1510792.00	389584.08	ARCO VALVE (90 BEND)
9758	1510771.97	389606.92	MANHOLE 1
9762	1510955.59	389582.11	OLD TANK
9774	1510748.48	390275.47	BOLLARD
9775	1510747.18	390361.33	BOLLARD
9776	1510745.03	390452.01	BOLLARD
9777	1510754.05	390535.00	BOLLARD
9778	1510760.68	390546.48	VALVE (PARTIAL)
9782	1510778.10	390369.22	PIPE (TURN)
9791	1510754.69	389785.00	BOLLARD
9792	1510759.44	389786.90	VALVE (18" PIPE)
9793	1510763.67	389798.71	PIPE 1~16" DIA
9794	1510764.75	389810.98	WATER INLET STRUCTURE 1
9795	1510759.75	389846.58	WATER INLET STRUCTURE 2
9796	1510753.78	389881.45	BOLLARD
9797	1510754.00	389918.54	BOLLARD
9798	1510760.69	389943.68	WATER INLET STRUCTURE 3
9799	1510759.38	389959.13	WATER INLET STRUCTURE 4
9800	1510760.84	389962.11	BOLLARD
9801	1510754.29	389983.96	BOLLARD
9802	1510804.30	389941.69	OLD REFINERY PIT 1
9803	1510818.37	389941.87	OLD REFINERY PIT 2
9804	1510812.83	389977.86	OLD REFINERY PIT 3
9805	1510797.36	389997.89	OLD REFINERY PIT 4
9806	1510831.03	390003.77	VALVE
9807	1510874.01	390026.82	OPEN BORE HOLE
9808	1510943.29	389964.48	MANHOLE 2
9813	1510865.41	390076.39	OLD REFINERY PIT 5
9814	1510833.97	390067.06	OLD REFINERY PIT 6
9815	1510828.85	390095.83	OLD REFINERY PIT 7
9816	1510805.77	390062.05	MONITORING WELL O
9817	1510753.47	390052.42	BOLLARD
9818	1510771.25	390084.08	HYDRANT
9819	1510751.14	390117.88	BOLLARD
9820	1510757.24	390130.77	BOLLARD
9821	1510760.88	390140.15	WATER INLET STRUCTURE 5
9822	1510760.84	390148.16	WATER INLET STRUCTURE 6
9823	1510872.75	390123.59	REFINERY VAULT 1
9824	1510868.12	390144.76	REFINERY VAULT 2
9825	1510928.07	390157.85	MANHOLE 3
9828	1510757.06	389690.93	BOLLARD
9833	1510775.24	390629.90	ARCO PIPE (TURN)
9835	1510764.02	390647.90	HYRANT
9836	1510739.93	390581.05	WATER INLET STRUCTURE 7
9837	1510745.29	390588.61	WATER INLET STRUCTURE 8
9838	1510744.12	390592.09	VALVE

TABLE 1.1 (CONTINUED)

Number	Northing	Easting	Raw Desc.
9839	1510760.66	390546.66	VALVE (PARTIAL)
9840	1510743.48	390607.43	WATER INLET STRUCTURE 9
9841	1510743.12	390616.22	WATER INLET STRUCTURE 10
9842	1510753.20	390618.38	BOLLARD
9844	1510916.46	390602.50	PIT 1
9845	1510911.59	390608.19	PIT 2
9846	1510913.80	390736.44	PIT 3
9847	1510909.62	390740.14	PIT 4
9853	1510747.87	390844.78	BOLLARD
9855	1510752.68	390786.05	HYRANT
9856	1510750.89	390772.45	BOLLARD
9858	1510746.45	391004.25	BOLLARD
9862	1510808.95	391074.68	HYDRANT
9863	1510808.01	391084.64	HYDRANT
9865	1510743.95	391135.27	BOLLARD
9866	1510742.90	391219.61	BOLLARD
9867	1510742.25	391299.10	BOLLARD
9868	1510751.17	391301.42	HYDRANT
9869	1510733.86	391299.70	HYDRANT
9871	1510787.30	391273.93	PIT 5
9872	1510880.00	391300.96	HYDRANT
9873	1510882.07	391301.84	HYDRANT
10542	1510722.30	390623.60	AREA 3 GND EL PIPE1
10543	1510721.70	390614.60	AREA 3 GND EL PIPE1
10544	1510720.70	390608.40	AREA 3 GND EL PIPE1
10545	1510720.80	390601.00	AREA 3 GND EL PIPE1
10546	1510724.50	390597.30	AREA 3 GND EL PIPE1
10547	1510721.50	390610.80	AREA 3 PIPE TOP PIPE1
10550	1510743.07	389311.11	PIPE 14"
10551	1510743.61	389312.80	PIPE 14"
10552	1510744.90	389315.14	PIPE 14"
10553	1510743.73	389317.96	PIPE 14"
10925	1510747.10	389269.72	10 PIPE REMOVED
10926	1510746.91	389269.37	10 PIPE REMOVED
10927	1510747.15	389272.96	10 PIPE REMOVED
10928	1510747.15	389274.90	10 PIPE REMOVED
10929	1510747.02	389276.12	10 PIPE REMOVED
10930	1510746.97	389277.29	10 PIPE REMOVED
10932	1510747.48	389279.30	4 PIPE REMOVED
10933	1510746.83	389284.20	6 PIPE REMOVED
10934	1510746.79	389283.79	6 PIPE REMOVED
10935	1510746.64	389287.09	10 PIPE REMOVED
10937	1510756.36	389284.25	WOOD WALL
10938	1510757.11	389280.18	WOOD WALL

TABLE 1.2

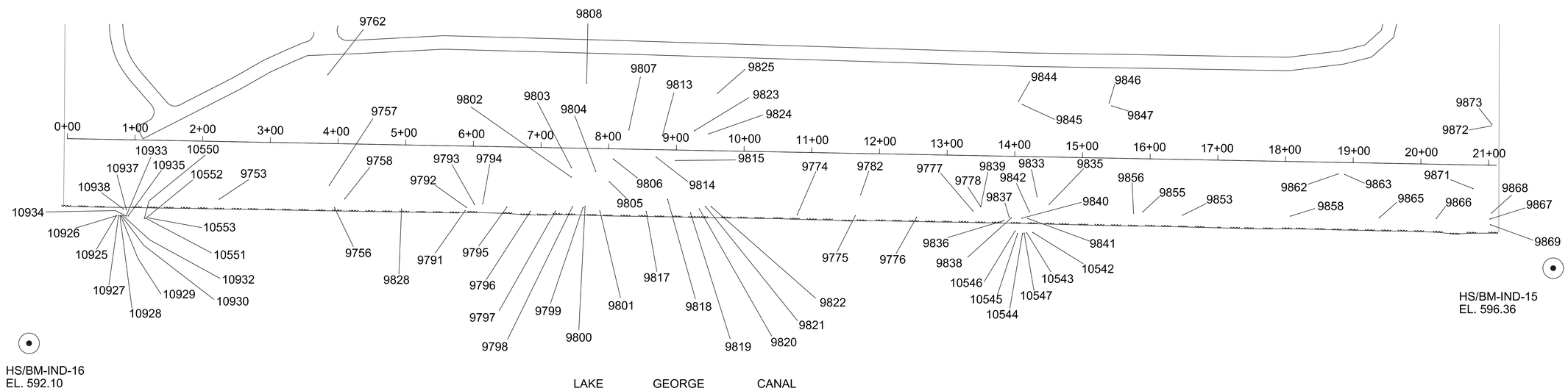
IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
053105 Version, PAGE 1

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9856	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

TABLE 1.2 (continued)

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
053105 Version, PAGE 2

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1638	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)
9838	Valve	60,62	D5 11-28	11	2	2	5/3/2005	This valve had a tee on the west end. All three exit pipes were removed and grouted.
9836	Structure 6	61,62	D5 11-28	13AD	1	1	5/3/2005	This structure was over excavated. The debris was removed and it was filled with 53's and top soil.
None	Structure 2	40	D5 32-39,61-65	13AA	1	1	5/3/2005	This was an electrical junction. All concrete to 1.5 ft deep wasdemolished and used as backfill.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1858	5/3/2005	220 Feet of Fenders and Accessories were removed completely.
None	Structure 3	41	D5 40-47,85-90,97-99,101-106	13AB	1	1	5/4/2005	This structure was adjacent and intergral to Struct. 4. It was demo'd to 1.5 ft below grade and filled.
None	Structure 7	67	D5 29-31,D6 12,13,16,17	13AE	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled.
None	Structure 8	70	D5 14,15	13AF	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled.
None	Structure 4	36-39	D5 40-47,85-90,97-99,101-106	13AC	1	1	5/6/2005	This structure was demo'd to 1.5 ft below grade and filled.
			D6 2, 18,22,27					
None	Pipe	None	D6 21,23-26	12	5	5	5/6/2005	These were the two pipes due west of structure 4. About 10" within pipe sleeves.
9807	Pit/Vault	None	D3 71-74, D52-60, 93-96,100	20	1	1	5/6/2005	The pay item is for one vault. A series of vaults was found in this area, all demo'd and filled.
			D6 3,19,20					
None	Man Hole	63	D3 61-70,75, D5 92,	15	1	1	5/12/2005	The top of the man hole was removed about 1.5 feet below grade and it was filled with 53's
			D6 8,9,63-66					
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1839	5/31/2005	The actual total amount of fenders removed was measured at 1839. This line is an adjustment.



Number	Northing	Easting	Raw Desc
9753	1510771.54	389421.61	PIPE
9756	1510758.84	389591.97	BOLLARD
9757	1510792.00	389584.08	ARCO VALVE (90 BEND)
9758	1510771.97	389606.92	MANHOLE 1
9762	1510955.59	389582.11	OLD TANK
9774	1510748.48	390275.47	BOLLARD
9775	1510747.18	390361.33	BOLLARD
9776	1510745.03	390452.01	BOLLARD
9777	1510754.05	390535.00	BOLLARD
9778	1510760.68	390546.48	VALVE (PARTIAL)
9782	1510778.10	390369.22	PIPE (TURN)
9791	1510754.69	389785.00	BOLLARD
9792	1510759.44	389786.90	VALVE (18" PIPE)
9793	1510763.67	389798.71	PIPE 1~16" DIA
9794	1510764.75	389810.98	WATER INLET STRUCTURE 1
9795	1510759.75	389846.58	WATER INLET STRUCTURE 2
9796	1510753.78	389881.45	BOLLARD
9797	1510754.00	389918.54	BOLLARD
9798	1510760.69	389943.68	WATER INLET STRUCTURE 3
9799	1510759.38	389959.13	WATER INLET STRUCTURE 4
9800	1510760.84	389962.11	BOLLARD
9801	1510754.29	389983.96	BOLLARD
9802	1510804.30	389941.69	OLD REFINERY PIT 1
9803	1510818.37	389941.87	OLD REFINERY PIT 2
9804	1510812.83	389977.86	OLD REFINERY PIT 3
9805	1510797.36	389997.89	OLD REFINERY PIT 4
9806	1510831.03	390003.77	VALVE
9807	1510874.01	390026.82	OPEN BORE HOLE
9808	1510943.29	389964.48	MANHOLE 2
9813	1510865.41	390076.39	OLD REFINERY PIT 5
9814	1510833.97	390067.06	OLD REFINERY PIT 6
9815	1510828.85	390095.83	OLD REFINERY PIT 7
9817	1510753.47	390052.42	BOLLARD
9818	1510771.25	390084.08	HYDRANT
9819	1510751.14	390117.88	BOLLARD
9820	1510757.24	390130.77	BOLLARD
9821	1510760.88	390140.15	WATER INLET STRUCTURE 5

Number	Northing	Easting	Raw Desc
9822	1510760.84	390148.16	WATER INLET STRUCTURE 6
9823	1510872.75	390123.59	REFINERY VAULT 1
9824	1510868.12	390144.76	REFINERY VAULT 2
9825	1510928.07	390157.85	MANHOLE 3
9828	1510757.06	389690.93	BOLLARD
9833	1510775.24	390629.90	ARCO PIPE (TURN)
9835	1510764.02	390647.90	HYRANT
9836	1510739.93	390581.05	WATER INLET STRUCTURE 7
9837	1510745.29	390588.61	WATER INLET STRUCTURE 8
9838	1510744.12	390592.09	VALVE
9839	1510760.66	390546.66	VALVE (PARTIAL)
Number	Northing	Easting	Raw Desc
9840	1510743.48	390607.43	WATER INLET STRUCTURE 9
9841	1510743.12	390616.22	WATER INLET STRUCTURE 10
9842	1510753.20	390618.38	BOLLARD
9844	1510916.46	390602.50	PIT 1
9845	1510911.59	390608.19	PIT 2
9846	1510913.80	390736.44	PIT 3
9847	1510909.62	390740.14	PIT 4
9853	1510747.87	390844.78	BOLLARD
9855	1510752.68	390786.05	HYRANT
9856	1510750.89	390772.45	BOLLARD
9858	1510746.45	391004.25	BOLLARD
9862	1510808.95	391074.68	HYDRANT
9863	1510808.01	391084.64	HYDRANT
9865	1510743.95	391135.27	BOLLARD
9866	1510742.90	391219.61	BOLLARD
9867	1510742.25	391299.10	BOLLARD
9868	1510751.17	391301.42	HYDRANT
9869	1510733.86	391299.70	HYDRANT
9871	1510787.30	391273.93	PIT 5
9872	1510880.00	391300.96	HYDRANT
9873	1510882.07	391301.84	HYDRANT
10542	1510722.30	390623.60	AREA 3 GND EL PIPE1
10543	1510721.70	390614.60	AREA 3 GND EL PIPE1
10544	1510720.70	390608.40	AREA 3 GND EL PIPE1
10545	1510720.80	390601.00	AREA 3 GND EL PIPE1
10546	1510724.50	390597.30	AREA 3 GND EL PIPE1

Number	Northing	Easting	Raw Desc
10547	1510721.50	390610.80	AREA 3 PIPE TOP PIPE1
10550	1510743.07	389311.11	PIPE 14"
10551	1510743.61	389312.80	PIPE 14"
10552	1510744.90	389315.14	PIPE 14"
10553	1510743.73	389317.96	PIPE 14"
10925	1510747.10	389269.72	10 PIPE REMOVED
10926	1510746.91	389269.37	10 PIPE REMOVED
10927	1510747.15	389272.96	10 PIPE REMOVED
10928	1510747.15	389274.90	10 PIPE REMOVED
10929	1510747.02	389276.12	10 PIPE REMOVED
10930	1510746.97	389277.29	10 PIPE REMOVED
10932	1510747.48	389279.30	4 PIPE REMOVED
10933	1510746.83	389284.20	6 PIPE REMOVED
10934	1510746.79	389283.79	6 PIPE REMOVED
10935	1510746.64	389287.09	10 PIPE REMOVED
10937	1510756.36	389284.25	WOOD WALL
10938	1510757.11	389280.18	WOOD WALL

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
SOLICITATION NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL

SITE PLAN
LOCATION OF REMOVED PIPE AND OBSTRUCTIONS

SHEET REFERENCE NUMBER:
CDR-1
SHEET 1 OF 1

PLOT DATE: $DATE$
FILENAME: CDR-1.DGN

IIIa Final Construction Quality Control Plan

CONTRACTOR QUALITY CONTROL PLAN

INDIANA HARBOR & CANAL
OBSTRUCTION REMOVAL

Prepared for:

U.S. Army Corps of Engineers
Chicago District
Calumet Area Office
906 Griffith Boulevard
Griffith, Indiana 46319

Contract No. W912P6-04-C-0006

Specification Section 01451
Contractor Quality Control

Submittal No. 01451-1.1

PN 030244.0001.0001.05

Prepared by:

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240

January 2005

CONTRACTOR QUALITY CONTROL PLAN

Contract No. W912P6-04-C-0006

Submittal No. 01451-1.1

I certify that this submittal has been reviewed in detail and is correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

1/28/05

Ed Wise, CQC Systems Manager — Date

Noted Exceptions:

None.

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B Letter to the CQC System Manager and Assistant Manager
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D Laboratory Certification

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1 Site Location Map
2 Site Plan
3 CQC Organization Chart

TABLES

1 Summary of Tests to be Performed

SECTION 1

INTRODUCTION

1.1 Purpose

The primary objectives of this project are to clear approximately 10.60 acres of the southern portion of the project site, and to remove 10-foot sections from 12 pipes adjacent to the existing sheet pile wall along the southern boundary of the site. These pipes are located approximately 25 feet below the water line, in 10 to 15 feet of sediment. The installation of the turbidity curtain serves to minimize the environmental impacts from the pipe removal.

The project site is located at 3500 Indianapolis Boulevard, East Chicago, Indiana, and is referred to as the Energy Cooperative, Incorporated (ECI) property.

This Contractor Quality Control (CQC) Plan describes the personnel, procedures, control, instructions, tests, records, and forms to be used for all features of work. This plan was written in conformance with specification *Section 01451, Contractor Quality Control* of Indiana Harbor and Canal (IHC) Confined Disposal Facility (CDF) Obstruction Removal, East Chicago, Indiana – Construction Documents, September 2004.

1.2 Organization

This plan contains seven sections. Section 2 provides background information on the ECI property, including a description of the site location and information describing the manufacturing that has taken place on the property. Section 3 describes the CQC organization for this project, its authority and responsibilities, and its commitment to follow a three-phase CQC Plan. Section 4 summarizes the approach for scheduling, reviewing, certifying, and managing submittals including the approach for subcontractors, off-site fabricators, suppliers, and purchasing agents. Section 5 presents the control, verification, and acceptance procedures for CQC. Section 6 describes the three-phase control program and the procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests

including documentation. This section provides the procedures for tracking construction deficiencies from identification through acceptable corrective action. Section 7 includes a list of the definable features of work.

SECTION 2

SITE LOCATION AND DESCRIPTION

2.1 Site Location

The Energy Cooperative Incorporated (ECI) property is located in Lake County Indiana (northwest Indiana), 20 miles southeast of downtown Chicago, Illinois and 1.5 miles northwest of the City of East Chicago, Indiana. A site location map is provided as Figure 1. The overall size of the property is approximately 160 acres. The project site is bordered by the Lake George Canal to the south, Indianapolis Boulevard to the east, Cline Avenue to the north, and the Amoco Oil Company Refinery to the west. Railroad tracks owned by CSX Railroad run parallel to the entire length of the west property line. A portion of these railroad tracks also diverges and bisects the property into a northern and a southern zone. The size of the northern zone is approximately 50 acres, and the southern zone is approximately 110 acres. The northern zone is connected to the southern zone via a right-of-way that crosses the bisecting railroad track near the eastern edge of the property.

2.2 Site Description

The ECI property was the location of a petroleum products refinery from 1918 to 1981. Peak production was approximately 140,000 barrels per day. The project parcel, termed the main refinery, contained the principal production area and also included storage, a marine loading area, rail loading areas, insecticide manufacturing, truck docking facilities, and an American Petroleum Institute (API) separator. The refinery operations included the production of mineral spirits, propane, leaded and unleaded gasoline, fuel oil, kerosene, asphalt and asphalt products, liquefied petroleum gas, grease, lubricating oils, paraffin wax, phenols, and sulfur. Between 1940 and 1958, pyrethrum extract consisting of dried heads of certain varieties of chrysanthemums was filtered on site. The filtered extract was combined with kerosene and used as an insecticide base to produce insecticide. The maximum annual production of insecticide

base occurred in 1944 when 49,359 barrels were produced. This accounted for 0.26 percent of the total plant throughput.

Former owners of the project site include Sinclair from 1918 to 1968, Atlantic Richfield Company (ARCO) from 1968 to 1976, and ECI from 1976 to 1981. Figure 2 shows the layout of the project site during ECI's ownership in 1977 while it operated as a refinery. In 1981, ECI filed for bankruptcy, and in the late 1980s, all buildings and aboveground structures were razed in response to a court order. Several inches of clean topsoil were graded to cover the site. In 1989, the City of East Chicago became the owner of the site as payment for back taxes owed by ECI.

The site has open Resource Conservation and Recovery Act (RCRA) status because the court-approved closure of the facility was not comparable to a RCRA-approved closure. In addition, the site requires RCRA corrective action because soil and groundwater on site were contaminated from past industrial activities.

EQ installed about 7,500 linear feet of soil bentonite slurry wall along the west, north, and east boundaries (except at the two CSX crossings) of the site in 2003 and 2004. EQ also removed over 250 utility obstructions along the path of the slurry wall in 2002.

SECTION 3

CQC ORGANIZATION AND RESPONSIBILITY

3.1 Quality Control Organization

Figure 3 shows the CQC organization for the IHC Obstruction Removal project. The CQC staff will implement the three-phase control system (Preparatory, Initial, and Follow-up) specified in Section 01451 Part 3.6 of the Construction Specifications.

3.2 CQC Staff

The CQC organization chart is presented in Figure 3. Resumes and copies of the CQC training certificates for key CQC personnel are presented in Appendix A. The following subsections present the name, qualifications, duties, responsibilities, and authorities of each person assigned a CQC function.

3.2.1 CQCSM

The Contractor Quality Control Safety Manager (CQCSM) for this project will be Mr. Ed Wise. Mr. Wise has 21 years of relevant experience with focused experience on projects relating to hazardous wastes, TSCA, CERCLA, wastewater, air, and OSHA. Mr. Wise served as the CQCSM for the Indiana Harbor and Canal Confined Disposal Facility Investigation and Cutoff Wall project performed on this site between 2002 and 2004. He successfully completed the CQC Management Training Class offered by the Corps of Engineers in 2002 and again in January 2005 to obtain training on the QCS system. As the CQCSM, Mr. Wise will be responsible for ensuring that the project is performed in accordance with the Construction Specifications and associated work plans. He will have the authority to adequately perform the function of the CQCSM, including the authority to stop work that is not in compliance with the Construction Specifications.

3.2.2 Assistant CQCSM

The Assistant CQCSM for this project will be Mr. Nicholas (Nick) Michailides. Mr. Michailides has a BS from Ohio University and 10 years of relevant experience. He successfully completed the CQC Management Training Class offered by the Corps of Engineers in 2003. As the Assistant CQCSM, Mr. Michailides will be responsible for ensuring that the project is performed in accordance with the Construction Specifications and associated work plans in the event that the CQCSM is unavailable on site. He will have the authority to perform the function of the CQCSM, including the authority to stop work that is not in compliance with the Construction Specifications.

3.2.3 Site Manager/Project Superintendent

Mr. William Brunston will serve as the Site Manager/Project Superintendent. Mr. Brunston has over 14 years experience in hazardous waste remediation (11 years in a management position), wastewater treatment, on-site volatilization systems, RCRA landfill construction and closures, buried drum removal, UST removal, erosion control systems (using rip rap, 2-ft x 2-ft x 8-ft concrete blocks, concrete lagging walls), road construction (asphalt, concrete and rock), PCB incineration, supervision of specialty subcontractors, environmental sampling, and various media. He is an equipment operator (dozers d-3 to d-8, trackhoes, rubber tire and track loaders, forklifts & cranes etc.).

Under Multi-Delivery Order contracts, he has performed project estimating, RCRA landfill construction and closures, road construction, crane operation, heavy equipment operation, Level B site work, environmental sampling and monitoring, asbestos removal, construction oversight, site management (including performance as Site Safety Officer), low-level radiation remediation, monitoring/training, confined space entry, and wastewater treatment. He will have the overall responsibility for ensuring that the construction portion of the project is completed on schedule and in conformance with the Construction Specifications.

3.3 Letter to the CQC System Manager

A copy of the letter to the CQC System Manager, signed by an authorized official of Environmental Quality Management, Inc. (EQ), is contained in Appendix B. This letter describes the responsibilities and designates sufficient authorities to perform the functions of the CQCSM and authorizes the CQCSM to stop work that is not in compliance with the contract.

3.4 Letter to the CQC System Assistant Manager

A copy of the letter to the CQC System Assistant Manager, signed by the CQC System Manager for Environment Quality Management, Inc. (EQ), is contained in Appendix B. This letter describes the responsibilities and designates all authorities of the CQC System Manager to the CQC Assistant Manager in the event a substitution is required, and extends to the authority to stop work that is not in compliance with the contract.

SECTION 4

SUBMITTAL PROCEDURES

4.1 Submittal Register

EQ will make submittals in accordance with the requirements of Specification Section 01330. ENG Form 4288 (Appendix C) will be used to track submittals. The Government has completed the initial entries in the Submittal Register, but additional submittals may be required. All submittals will be entered into the submittal register including those from subcontractors, off-site fabricators, suppliers, and purchasing agents. The approved submittal register will be used to control submittals throughout the life of the contract and will become the scheduling document. The submittal register and the progress schedule will be coordinated. EQ will maintain the submittal register for the project using the QCS/RMS software system.

The submittal register ENG Form 4288 is in Microsoft Excel format and will be updated as needed to ensure that it is current as submittals are made or returned. The register will allow EQ to ensure that submittals are properly scheduled to allow for CQCSM and Contracting Officer (CO) review and approval prior to ordering and/or performing.

As required by Section 1330, all submittals will be checked and approved by the CQCSM prior to submittal to the CO.

4.2 Transmittals

All submittals will be stamped, signed, and dated; any deviations will be clearly identified. The transmittal form (ENG Form 4025) will accompany all submittals. For any submittals that include proposed deviations, the column “variation” of the transmittal form will be checked. EQ will provide all submittals for this project in both paper (seven copies) and electronic (four copies) formats on CD to the CO. Upon completion of review of submittals requiring government approval, the submittals will be identified as having received approval. Five copies of the paper submittal will be retained by the CO, and two copies of the paper

submittal will be returned to EQ. After approval, EQ will provide to the CO the approved submittal in the appropriate electronic format within 5 calendar days. The appropriate electronic formats are Microsoft Excel for data tables, PDF format for Quality Assurance/Quality Control (QA/QC) or other documentation, and Microstation .DGN format for electronic drawings. Other types of documentation will be submitted in the formats contained in Section 1330.

SECTION 5

TESTS

This section summarizes the tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. A summary of tests to be performed is presented in Table 1, Summary of Tests to be Performed. EQ has verified that the various testing procedures comply with the contract requirements. We have also verified that the laboratories and testing equipment are available and comply with testing standards. We will check test instrument calibration data against certified standards (where applicable) and will verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared. Results of all tests taken, both passing and failing, will be recorded in the Daily CQC Management Report. This report will include a reference to the associated Specification Section, location of test samples, and a sequential control number identifying the test. Laboratory test reports will be submitted to the CO after they become available.

5.1 Laboratory

To ensure that the data provided for waste characterization meets project data quality objectives, a laboratory meeting USACE validation requirements will be used. The analyses will be performed by STL Laboratories. STL operates several laboratories, each of which is certified/accredited to perform different analyses. Only specific laboratories with certification/accreditation for individual analysis will be allowed to perform these tests. A copy of the laboratory's current letter of validations is presented in Appendix D. Alternate laboratories may be used with the approval of USACE.

5.2 Capability Check

EQ will allow the Government to perform a laboratory capability check at their request. This cost will be borne by the Government if the laboratory passes the test. If not, EQ will reimburse the Government $2,500 for each failed laboratory capability check.

5.3 Duplicate Samples

EQ will perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. EQ will furnish to the Government duplicate samples of test specimens for possible testing by the Government as requested. Testing will include operation and/or acceptance tests when specified. EQ will perform the following activities and will record and provide the following data:

- Verify that testing procedures comply with contract requirements.
- Verify that facilities and testing equipment are available and comply with testing standards.
- Check test instrument calibration data against certified standards.
- Verify that recording forms and the test identification control number system have been prepared, including all test documentation requirements.
- Record results of all tests taken, both passing and failing tests, on the CQC report for the date taken. The specification paragraph reference, the location where tests were taken, and the sequential control number identifying the test will be given. If approved by the CO, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the CO.

SECTION 6

TRACKING PROCEDURES

After all required plans/documents/materials are approved/accepted, at least three phases of control will be conducted by the CQCSM for each definable feature of work: Preparatory Phase, Initial Phase, and Follow-up Control Phase. The USACE will be notified at least 48 hours in advance of beginning both the preparatory and initial control phases. Whenever one of the control phase meetings occur, a set of meeting minutes will be prepared by the CQCSM and attached to the Daily CQC Management Report (these meeting minutes will not be submitted under an ENG4025 Form or tracked on the ENG4288.)

During the First Preparatory Phase meeting between EQ and the government, a schedule of the work tasks requiring phase meetings will be agreed upon. This schedule will then be used to document the progress of work including the three phases of control (preparatory, initial, and follow-up) for each work task. The schedule will be updated as required and will be posted on the wall of the contractor's field trailer. A current copy of the schedule will be submitted along with the Daily CQC Management Report and Phase meeting minutes when these meetings occur.

6.1 Preparatory Phase

The preparatory phase will be performed prior to beginning work on each definable feature of work, after all appropriate plans/documents/materials for the work being included in the preparatory meeting are approved/accepted, and after copies are at the work site. This phase will include:

- A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field will be made available by EQ at the Preparatory Inspection. These copies will be maintained in the field and available for use by USACE personnel until final acceptance of the work.

- A review of the applicable contract drawings.
- A check to ensure that all materials and/or equipment have been tested, submitted, and approved.
- Review of provisions that have been made to provide required control inspection and testing.
- Examination of the work area to ensure that all required preliminary work has been completed and is in compliance with the contract.
- A physical examination of required materials, equipment, and sample work to ensure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- A review of the appropriate activity hazard analysis to ensure safety requirements are met.
- Discussion of procedures for controlling the quality of the work, including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work will be included.
- A check to ensure that the portion of the plan for the work to be performed has been accepted by the CO.
- Discussion of the initial control phase.
- Completion of Preparatory Phase Checklist (Appendix C).

6.2 Initial Phase

The initial phase will be accomplished at the beginning of a definable feature of work. The following will be accomplished:

- Check work to ensure that it is in full compliance with contract requirements. Review preparatory meeting minutes.
- Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- Resolve all differences.

- Check safety to include compliance with and upgrading of the safety plan and the activity hazard analysis. Review the activity analysis with each worker.

- Repeat the initial phase for each new crew who will work on site, or any time acceptable specified quality standards are not being met.

- Complete Initial Inspection Checklist (Appendix C).

6.3 Follow-up Phase

Daily checks will be performed to ensure that control activities, including control testing, are providing continued compliance with contract requirements until completion of the particular feature of work. The checks will be made a matter of record in the CQC documentation. Final follow-up checks will be conducted, and all deficiencies corrected prior to the start of additional features of work that may be affected by the deficient work. EQ will not build upon nor conceal non-conforming work.

6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases will be conducted on the same definable features of work if:

- The quality of ongoing work is unacceptable.
- There are changes in the applicable CQC staff, on-site production supervision, or work crew.
- Work on a definable feature is resumed after a substantial period of inactivity.
- Other problems develop.

6.5 Deficiency Procedure

This section establishes procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

Daily checks will be performed to ensure that control activities are providing continued compliance with contractual requirements and will be recorded on the daily CQC Management

Report. Final follow-up checks will be conducted at the completion of each work item and prior to start of additional phases that may be affected by any deficiencies in previous work.

A deficiency-tracking list will be developed and a deficiency number associated with each problem (starting with Deficiency No. 1). This list will be posted in the on-site field trailer and will include the following items at a minimum: number, description, initial date, corrective action, and final date corrected. A copy of this list will be submitted along with the Daily CQC Management Report on any dates that a deficiency has occurred or been corrected.

6.6 Reporting Procedure

The Daily Quality Control Management Report will be completed daily. Additional reporting forms will be submitted (as needed) as attachments to document quality control. The daily forms will be completed early the following morning for review by USACE's on-site representative and will be submitted via the QCS system. Updated and current copies of all CQC documents will be available at the site trailer for review or inspection at all times.

SECTION 7

DEFINABLE WORK FEATURES

This section presents a list of definable features of work. The following features of work will be completed as part of this project:

1) Site Survey – This will include surveying of existing structures to be demolished and video documentation. EQ will prepare a base drawing for maintaining current "red line" as-built drawings during progress of the work.

2) Mobilization – Mobilization involves the setup of temporary site facilities, mobilization of personnel to the site, and the transportation of equipment to the site. Prior to beginning any excavation activity, the following tasks will be performed:

   - Mark the work area limits.

   - Install temporary erosion and sedimentation control devices including a silt fence.

   - Install and Furnish Field Offices. Provide temporary field offices for EQ and EQ's subcontractors. Furnish offices with desks, communications equipment, copiers, fax machines, and other supplies according to needs. Provide additional trailers to store light equipment and supplies.

   - Install Support Facilities - Install sanitary facilities, potable water, electricity, telephones, waste disposal receptacles for contaminated and uncontaminated construction materials, and a "lay-down" area for construction materials and signs. A vehicle/equipment cleaning station will be constructed. The system of existing access roads on site will be expanded as necessary. Any new roads will be constructed of crushed aggregate with a similar design as the existing roads.

   - Install Project and Safety Signs – EQ will erect one project sign, one safety sign, and four safety warning signs. These signs will be maintained throughout the duration of the project.

3) Clearing and Demolition – Clearing and demolition activities will be performed on site as required by specification sections 02231 and 02220, respectively.

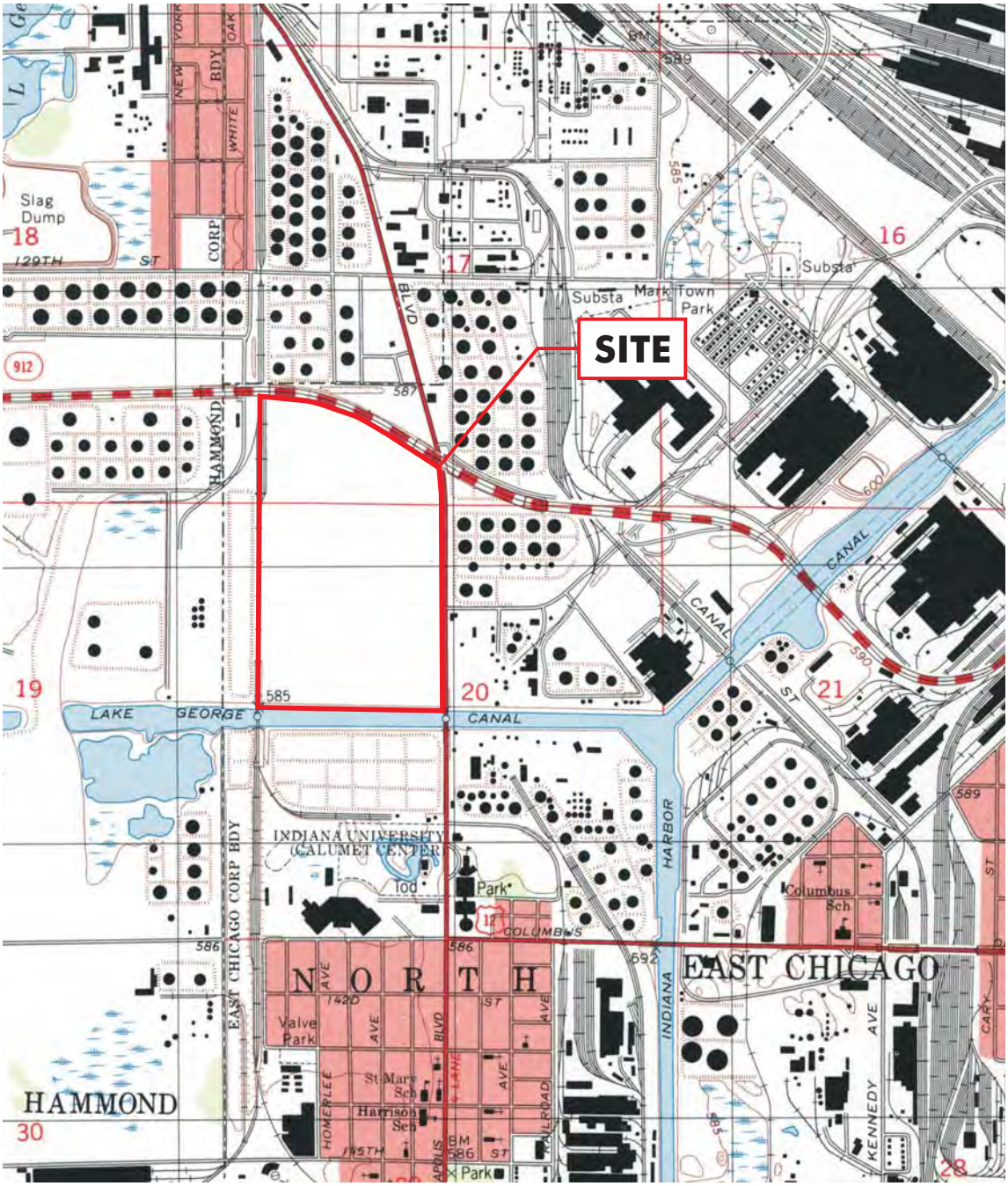
4) Removal of the bumper/fender timbers from the existing sheet pile wall.

5) Obstruction Removal – This will include:

- Air Monitoring during the time dredged materials are on site and exposed to atmosphere.
- Installation of the Silt Curtain
- Steel Sheet Pile Installation
- Dredging
- Obstruction Removal – Removal of 10-foot sections of the 12 pipes.
- Closure Procedures
- Closure Report

6) Demobilization – Demobilization involves the dismantling and removal of all construction equipment and temporary support facilities, work areas, structures, stockpiles of excess waste materials, and construction debris. This will include preparation of a close-out punch list.

FIGURES



Scale 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

QUADRANGLE LOCATION

N

Reference:
IN Harbor & Canal CDF
IHC Obstruction Removal
3500 Indianapolis Boulevard
East Chicago, IN 46312
Contract No. DACW 27-02-C-0003

Date: November 2004

BASE MAP SOURCE:
USGS 7 1/2 minute topographic quadrangle map. Whiting, Indiana 1998.

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
Phone: (513) 825-7500
Fax: (513) 825-7495

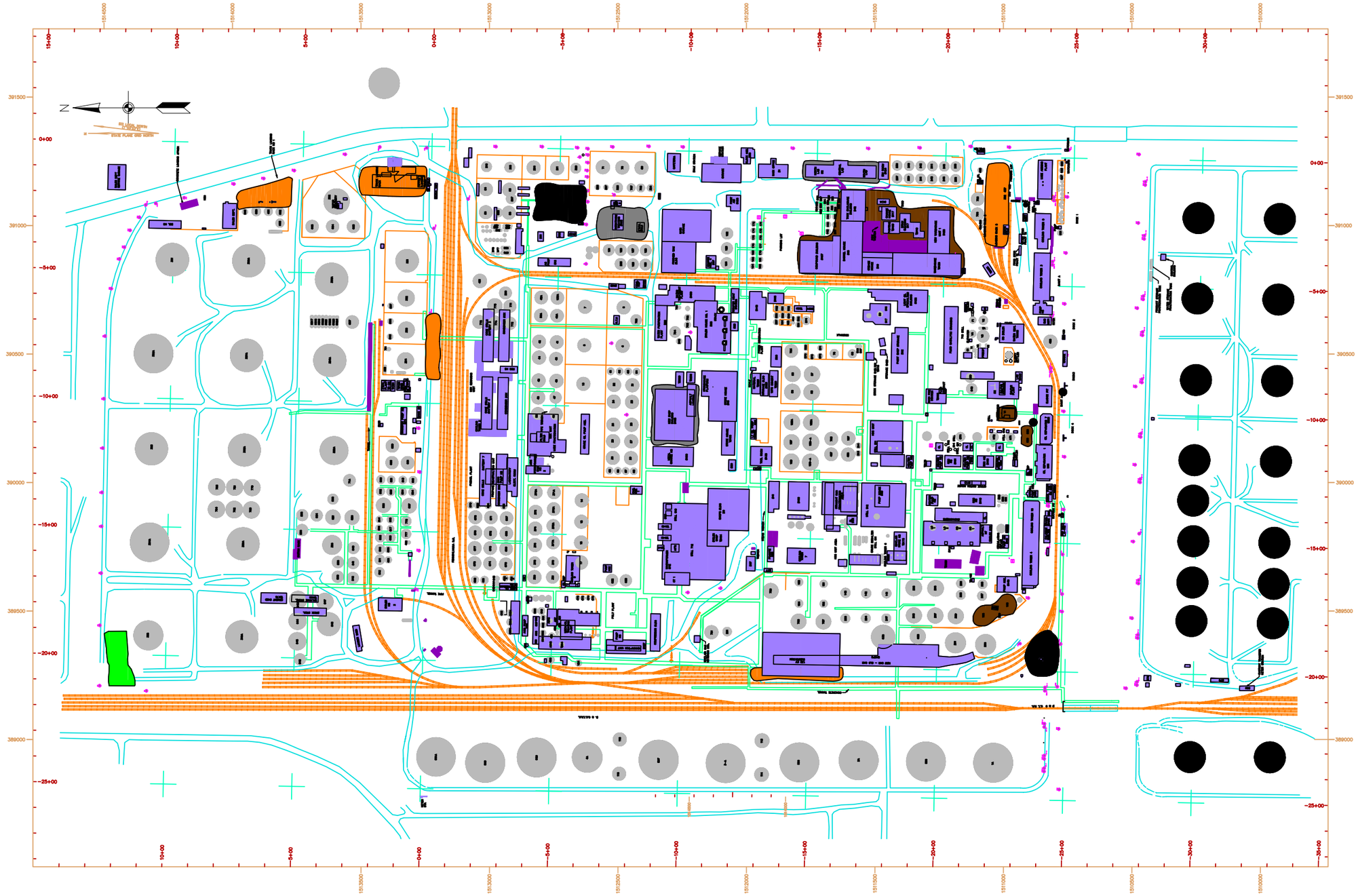
DRAWN	SRL	3/12/02
CHECKED	JAW	3/12/02
APPROVED	FDH	3/12/02

SCALE: 1:24000

Site Location Map

Indiana Harbor & Canal CFD,
IHC Obstruction Removal

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	Fig 1	



0 100' 300' 800'
50' 200' 400'

REV	DESCRIPTION	DATE	APPROVED

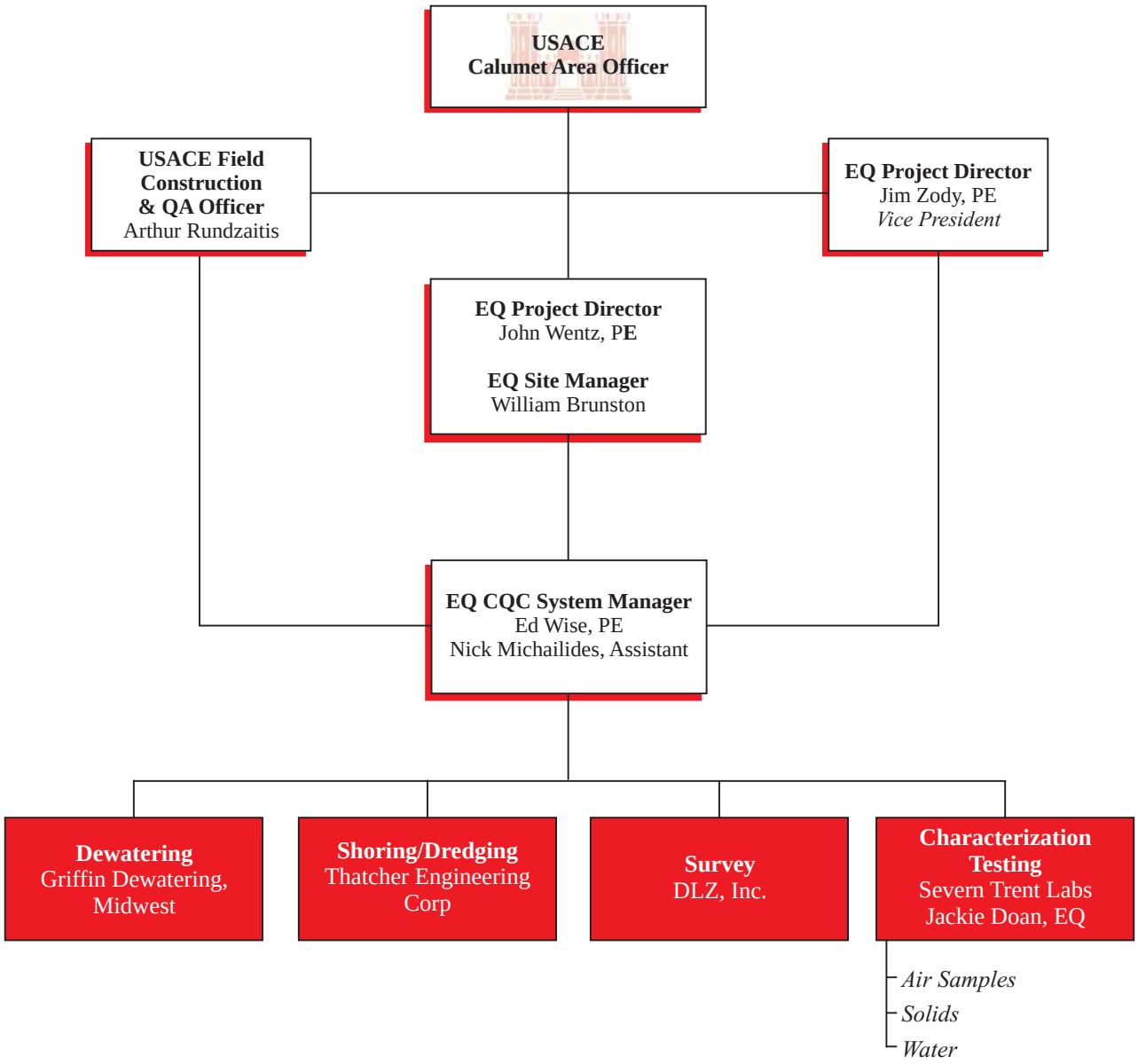
REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	12/30/04
CHECKED	E.WISE	12/30/04
APPROVED	J.WENTZ	12/30/04
SCALE:	AS NOTED	

IHC CDF OBSTRUCTION REMOVAL
ECI SITE PLAN 1977

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
B	030244	FIGURE 2	0



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
Phone: (513) 825-7500
Fax: (513) 825-7495

DRAWN	SRL	1/26/05
CHECKED	TC	1/26/05
APPROVED		

SCALE: N/A

CQC Organization
Indiana Harbor & Canal CFD,
IHC Obstruction Removal

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	Fig 3	

TABLES

TABLE 1

SUMMARY OF TESTS TO BE PERFORMED

Test Name	Frequency	Reference Specification Paragraph	Performed By	Approximate Number of Tests	Details in Plan
Volatile Organic Compounds (TO 15)	1/day[a]	01355.3.4.2	STL[b]	20	Air Quality Monitoring
Polynuclear Aromatic Hydrocarbons (TO 13A)	1/day[a]	01355.3.4.2	STL[c]	20	Air Quality Monitoring
Polychlorinated Biphenyls (TO 13A)	1/day[a]	01355.3.4.2	STL[c]	20	Air Quality Monitoring
Particulate, Real Time	As Needed	01355.3.4.3	SSHO[d]	100	Air Quality Monitoring
Noise	As Needed	01355.3.4.7	SSHO[d]	100	Environmental Protection
Dredge Material Profiling (Solid)	1/Project	01355.1.7.2(p), 2325.2.2.3	STL[e]	1	Dredging, Disposal, and Loading
Dredge Filtrate Profiling (Liquid)	1/Project	01355.1.7.2(p), 2325.2.2.3	STL[e]	1	Dredging, Disposal, and Loading
Miscellaneous Wastewater (Decon, etc.)	1/Project	01355.3.5.6	STL[e]	1	Environmental Protection
Fill Material[f]	0	02231.3.3.1.1	NA	0	Borrow Area Identification Statement
Nondestructive Testing[g]	As Needed	05055.2.2	g	As Needed	NA

Notes:

[a] Once per day when dredging sediments from the canal, or offloading/rehandling dredge sediments, or temporarily handling dredge sediments.

[b] STL Los Angeles of Santa Ana, CA.

[c] STL Sacramento of West Sacramento, CA.

[d] The EQ Site Safety and Health Officer or designee.

[e] STL Canton of North Canton, OH.

[f] Testing of fill material is not required if a Commercial Existing Borrow/Disposal Site is the fill source. EQ will use such a source for this project.

[g] The Government may require nondestructive testing if the soundness of any material is in question. The cost for this testing will be borne by the Government. EQ will identify a laboratory for this testing if it becomes necessary. This laboratory will be approved before the tests are performed.

APPENDIX A

RESUMES AND CQC TRAINING CERTIFICATES OF CQC PERSONNEL

Education

B.S., Chemical Engineering, Michigan Technological University, May 1980
MBA, Northern Kentucky University, In Progress

Areas of Specialization

- Hazardous and PCB Waste Characterization and Remediation
- Superfund RI/FS, RD, and RA
- Water and Wastewater Treatability, Treatment System Design, Troubleshooting, for Industrial, Emergency, and Remedial Activities
- Hazardous Waste and Wastewater Permitting
- Due Diligence and Compliance
- Contingency Planning: SPCC, SWP3, TOMP, BMP
- Innovative Treatment Technology Development for Hazardous Waste and Waste Water

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Professional Experience

Mr. Wise is a Chemical Engineer with 19 years of environmental engineering experience. His technical experience is focused at projects relating to hazardous waste, TSCA, CERCLA, wastewater, air, and OSHA. This includes remediation, permitting, compliance, and general management issues. He has extensive experience in site characterization and remediation, multifaceted compliance audits, pre-acquisition due diligence audits, and agency/attorney/public interaction for permitting and regulatory interpretation projects.

Mr. Wise has performed numerous site characterization and remediation projects. The constituents of concern have included; Polychlorinated Biphenyl's (PCBs), heavy metals, Polynuclear Aromatic Hydrocarbons (PAH's), halogenated solvents, non-halogenated solvents, dioxin/dibenzofurans, low-level radioactive/mixed waste, biohazardous waste and others. He has extensive experience with PCBs from lubricants and transformer fluids. This includes detailed analysis' of fate and transport mechanisms, site characterization, interpretation of analytical data, remedial action plan preparation, agency negotiation, and remediation oversight. He has performed projects at a wide variety of industrial and governmental sites. They include interstate natural gas pipeline, refinery, petrochemical, integrated steel, military (base and major contractors), and a wide variety of manufacturing firms.

He has extensive experience with the interstate natural gas pipeline industry and has performed projects at over 80 different compressor stations and 20 metering and reduction sites. These projects have included development and implementation of site characterization work plans (including

surface and sub-surface soils, groundwater, as well as permeable and impermeable surfaces), QA/QC (i.e. data validation), remedial alternative review, development of remedial action plans, oversight of remediation (including verification sampling), and agency/attorney interaction. Constituents of concern included PCBs, mercury, chromium, arsenic, lead, petroleum hydrocarbons, non-halogenated solvents, and others. Mr. Wise assisted with the development of the technical requirements of Texas Eastern's PCB Consent Decree. The remedial cost for this project was estimated at $400 million, and it involved a $10 million penalty (the largest of its kind at the time). He has also performed wastewater characterization, treatment system design, installation, operation, and trouble shooting resulting in the installation of 11 wastewater treatment plants for natural gas compressor stations. In addition, Mr. Wise has prepared over 75 SPCC plans for stations located throughout the eastern U.S. He is intimately familiar with typical operations and procedures associated with the industry.

Mr. Wise has extensive experience in wastewater characterization and treatment system design. This includes a variety of physical/chemical and biological treatment systems. The constituents of concern have included PCBs, total suspended solids, heavy metals, oil and grease, pH, biological oxygen demand, phenolics, cyanide, organic nitrogen compounds, and a wide variety of organic compounds. System sizes ranged from 10 to 5,000 gpm. Mr. Wise developed analytical programs (including QA/QC) for characterization, interpreted data, reviewed appropriate treatment systems (including treatability studies), designed systems and specified equipment, selected contractors, and oversaw system fabrication/installation, start-up, operator training, and de-bugging. He has also performed numerous projects related to upgrades or expansion of existing systems.

Mr. Wise also has in-depth experience in due diligence or pre-acquisition auditing. This has involved well over 100 transactions and included Phase I, Phase II, agency negotiation, remediation, etc. tasks. The projects were very diverse and ranged in size from vacant tracts through a $6 billion transaction of a major chemical corporation. Applicable industries included, integrated steel, chemical, automotive salvage yards, clothing dry cleaners, equipment manufacturers, gasoline stations, and many others.

Mr. Wise has performed numerous multi-discipline compliance audits covering a wide variety of environmental, fire protection, and health and safety issues. He has developed site specific audit checklists, conducted/supervised audits, prepared reports, and consulted with clients on prioritizing action items. Industries that were audited include specialty chemical manufacturer's, integrated steel mills, cement kilns, precious metal foundries, and a diverse assortment of manufacturing facilities.

Mr. Wise also has performed work on over 15 CERCLA (Superfund sites). This has included review of the hazard ranking system analysis, remedial investigation, feasibility studies, review and negotiation of records of decision, remedial design, and remedial action. He has also reviewed a wide variety of technologies including: disposal, incineration, biodegradation, recovery, carbon absorption, stripping, separation, and many others. The work included a site affected with PCBs

from a transformer salvage operation, two abandoned creosote and pentachlorophenol wood treating sites, a formed heavy metal reclamation site, and several former commercial industrial waste disposal sites.

Mr. Wise has performed projects in 29 different states throughout the continental U.S. In addition to federal regulations, he is familiar with a wide variety of state and local regulations. This includes projects relating to site characterization/remediation (RCRA, TSCA and CERCLA), permitting, and regulatory compliance matters. He has extensive experience in assisting attorneys and has provided expert witness testimony.

Mr. Wise also developed a process for rendering a hazardous waste scrubber sludge non-hazardous by the fixation of lead and cadmium. This included identification and development of an innovative phosphate fixation technology. Mr. Wise evaluated the process system, obtained representative samples, performed treatability studies, and reviewed the analytical data. He then performed a conceptual and detailed design (including equipment specification) and supervised the installation and start-up. The capital cost of this project was $70,000 and resulted in an annual cost savings of about $750,000.

Mr. Wise has assisted in the preparation/submission of four RCRA Part B permit applications including the preparation of all of the associated plans and subsections for one or more application. The applications were for a Naval DOD facility in Corpus Christi, a creosote wood treating facility in northern Texas, and two chemical plants in the Houston area.

Mr. Wise has prepared six RCRA closure plans ranging in complexity from a single underground storage tank to a complete creosote wood treating facility containing surface impoundments, storage tanks (above and below grade), waste piles, process equipment, and contaminated surface soils. In most cases preparation of the closure plan was preceeded by thorough soil and hydro geological evaluations.

Mr. Wise also has extensive experience in performing economic evaluations on various remedial and treatment options. This includes cost estimating for various options (capital and operating expenses), as well as performing risk and economic analysis. These economic analysis have included net present value, return on investment, effective rate of return, and others. These studies have enabled management to make sound economic decisions relating to environmental matters.

Selected Publications

RCRA Surface Impoundment Options for Creosote and Pentachlorophenol Wood Treating Facilities - Edward D. Wise, presented at the 1986 American Wood Preservers Association Meeting, Philadelphia, PA.

Total Recycle of Flue Gas Scrubber Water From a Steelmaking Process - Edward D. Wise and Carl Batliner, presented at the 1984 National Water Pollution Control Federation Symposium, New Orleans, LA.

Application of Armco's Phosphate Fixation Technology on Open Hearth Wet Scrubber Sludge - Edward D. Wise and Carl Batliner, presented at the 1983 joint U.S. EPA - American Iron and Steel Institute Symposium, Chicago, IL.

U.S. ARMY CORPS OF ENGINEERS

PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

Ed Wise

has completed the Corps of Engineers Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

(STATE OF FLORIDA, Construction Industry Licensing Board COURSE # 004F0384-1B)
(12 CEHs of 16 CEH requirement, 1 CEH for Business Practices (site safety, workman's comp., financing CEHs not included)
(STATE OF FLORIDA, Board of Architecture and Interior Design COURSE # AR.04.579 - 17 Hours - Level of Instruction - Advanced)

is awarded continuing education credits as
*indicated for **16** hours of organized instruction*

Certified Provider #199309
1.3 CEUs

Registered Provider #I009
39 LUs

Registered Provider
13 PDHs

Given at West Palm Beach, FL By Jacksonville District June 19 & 20, 2002
Location Instructional District Date

Joseph Tavares
Joseph Tavares
Facilitator
CESAJ-CO-CQ (904) 232-3446

Gary F. Anderson
Chief, USACE Professional Development Support Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Environmental Quality Management, Inc. **NICHOLAS J. MICHAILIDES**

Education

B.S., Industrial Hygiene, Ohio University, 1995
M.S., Environmental Science, Ohio University, 2000
OSHA 40-hour HAZWOPER Training
OSHA 8-hour HAZWOPER Refresher

Areas of Specialization

- Phase I ESA
- Industrial Hygiene Monitoring
- Comprehensive Industrial Hygiene and Safety Surveys
- Asbestos Building Inspections
- Conduct OSHA Mandated Training Programs
- Lead Paint Building Assessments

Professional Experience

Mr. Michailides is an Industrial Hygienist in EQ's Industrial Hygiene and Safety Division. He has experience performing sampling for chemical, biological, and physical agents; conducting comprehensive industrial hygiene and safety evaluations; developing training databases; and conducting training courses and Phase I ESAs.

Mr. Michailides has supervised the development of a comprehensive machine safety training database for Leibert Technologies. Mr. Michailides wrote Hazard Communications, OSHA Recordkeeping, Emergency Response, and Respiratory Protection Programs for Dillon Manufacturing Company. He has performed qualitative and quantitative (PortaCount) respirator fit testing. Conducted HAZCOM, confined space, and respirators protection training programs and performed occupational exposure monitoring (chemical and physical agents) for various commercial clients.

Mr. Michailides has inspected facility buildings and developed O&M programs for Belcourt Nursing Homes of Ohio.

Professional Affiliations

American Congress of Governmental Industrial Hygienists (ACGIH)
American Industrial Hygiene Association (AIHA)

U.S. ARMY CORPS OF ENGINEERS

PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

This is to certify that

NICK MICHAILIDES

has completed the Corps of Engineers Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Given at Chicago, Ill. (Location) By Chicago (Instructional District) 18 APRIL 2003 (Date)

Leon B. Turner
Facilitator

Gary F. Anderson
Chief, USACE Professional Development Support Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

U.S. ARMY CORPS OF ENGINEERS

PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

This is to certify that

BEN LETANY

has completed the Corps of Engineers Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Given at Chicago, Ill. (Location) By Chicago (Instructional District) 18 APRIL 2003 (Date)

Leon B. Turner
Facilitator

Gary F. [illegible]
Chief, USACE Professional Development Support Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

U.S. ARMY CORPS OF ENGINEERS

PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

This is to certify that

Todd Colocino

has completed the Corps of Engineers Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Given at Tacoma, WA (Location) By Seattle District (Instructional District) 09/12/03 (Date)

Robert D Milly Brent D. Dvorak
Facilitator

Gary L Anderson
Chief, USACE Professional Development Support Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

APPENDIX B

LETTER TO THE CQC SYSTEM MANAGER

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
(513) 825-7500
fax (513) 825-7495
www.eqm.com

January 26, 2005

Mr. Edward D. Wise
Contractor Quality Control System Manager
Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240

RE: Quality Control System Manager Responsibility and Authority
Indiana Harbor and Canal Confmed Disposal Facility Obstruction Removal
USACE Contract W912P6-04-C-0006
EQ PN 030244.0001.0001.05

Dear Mr. Wise:

This is a Letter of Direction to you outlining your duties and responsibilities as our Quality Control System Manager on the above referenced project.

You will be responsible for preparing and maintaining the Submittal Register Form 4288 for the duration of the project. You are required to check all shop drawings for accurate dimensions and to ensure compliance to applicable specifications and drawings as to the quality of materials being proposed for this project. This also applies to all subcontractors, offsite fabricators, and suppliers.

You will make, on a continuing basis, sufficient daily follow-ups to ensure that all workmanship and materials in the construction of this project are in conformance with the specifications and drawings.

You will be responsible for all testing as required by the specifications. Qualified individuals onsite will perform the tests and the results will be supplied to you for your review and approval as outlined in the Site CQC Plan.

You will be present during all testing and coordinate all such tests as required in accordance with the specifications and the Corps of Engineers Representative.

The quality control system will include three phases of control and tests: Preparatory Phase, Initial Phase, and Follow-up Phase. You are directed to Section 01451, paragraph 3.6, for specific instructions outlining these control phases. All control phases and tests shall be recorded daily on the Quality Control Report and submitted to the Government Representative on the following workday covered by the report. All test results shall be submitted in compliance with the procedures identified in Section 01312, Quality Control System, by using the Government-furnished Resident Management System (RMS) for Windows and the Contractor Module of RMS referred to as QCS and Section 01330 Submittal Procedures.

You are directed to review in their entirety, the Indiana Harbor CQC Plan as well as the Project Specifications, Amendments and Drawings. If there is an item no understood, you are to consult your Quality Control Support Team.

You are hereby authorized to stop work that is not in compliance with the Contract.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

James G. Zody, P.E.
Project Director for Indiana Harbor and Canal CDF Project
Vice President

JGZ:sp

cc: EQ Project Manager
USACE

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
(513) 825-7500
fax (513) 825-7495
www.eqm.com

January 26, 2005

Mr. Nicholas J. Michailides
Contractor Quality Control System Manager
Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240

RE: Quality Control System Manager Responsibility and Authority
Indiana Harbor and Canal Confined Disposal Facility Obstruction Removal
USACE Contract W912P6-04-C-0006
EQ PN 030244.0001.0001.05

Dear Mr. Michailides:

This is a Letter of Direction to you outlining your duties and responsibilities as the Assistant Quality Control System Manager on the above referenced project, in the event you are required as a substitute for the Quality Control System Manager.

You will be responsible for preparing and maintaining the Submittal Register Form 4288 for the duration of your substitution. You are required to check all shop drawings for accurate dimensions and to ensure compliance to applicable specifications and drawings as to the quality of materials being proposed for this project. This also applies to all subcontractors, offsite fabricators, and suppliers.

You will make, on a continuing basis, sufficient daily follow-ups to ensure that all workmanship and materials in the construction of this project are in conformance with the specifications and drawings.

You will be responsible for all testing as required by the specifications. Qualified individuals onsite will perform the tests and the results will be supplied to you for your review and approval as outlined in the Site CQC Plan.

You will be present during all testing and coordinate all such tests as required in accordance with the specifications and the Corps of Engineers Representative.

The quality control system will include three phases of control and tests: Preparatory Phase, Initial Phase, and Follow-up Phase. You are directed to Section 01451, paragraph 3.6, for specific instructions outlining these control phases. All control phases and tests shall be recorded daily on the Quality Control Report and submitted to the Government Representative on the following workday covered by the report. All test results shall be submitted in compliance with the procedures identified in Section 01312, Quality Control System, by using the Government-furnished Resident Management System (RMS) for Windows and the Contractor Module of RMS referred to as QCS and Section 01330 Submittal Procedures.

You are directed to review in their entirety, the Indiana Harbor CQC Plan as well as the Project Specifications, Amendments and Drawings. If there is an item no understood, you are to consult your Quality Control Support Team.

You are hereby authorized to stop work that is not in compliance with the Contract.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

Edward D. Wise, P.E.
Quality Control System Manager

EDW:sp

cc: EQ Project Manager
USACE

APPENDIX C

FORMS

PREPARATORY PHASE CHECKLIST
INDIANA HARBOR OBSTRUCTION REMOVAL

Contract No.: W912P6-04-C-0006
Title: _____
_____

Date Preparatory Held: _____
Spec Section _____
Drawing No.(a): _____

Definable Feature of Work: _____
_____

A. PERSONNEL PRESENT

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

(List additional personnel on reverse side)

B. DRAWINGS AND SPECS:

I. Has each spec paragraph, contract drawing, and shop drawing been studied: YES____ NO____
II. Do all parties have up-to-date drawings and specifications: YES____ NO____

C. SHOP DRAWINGS INVOLVED:

	Transmittal Descr.	Trans.#	Action Code
1.			
2.			
3.			

PREPARATORY PHASE CHECKLIST
INDIANA HARBOR OBSTRUCTION REMOVAL (continued)

D. MATERIALS:
I. Are all materials on hand? YES___ NO___
II. Have all materials been checked for contract compliance against approved shop drawings: YES___ NO___
III. Items not on hand or not in accordance with transmittals (If not on hand, check during initial phase)
1. _____
2. _____
3. _____
4. _____

E. Test required in accordance with contract requirements:
Test/Paragraph Frequency
1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

F. ACCIDENT PREVENTION: Has Hazard Analysis been completed?
YES____ NO____ If yes, attach a copy,
if no, explain _____
_____
_____
_____
_____
_____
_____

PREPARATORY PHASE CHECKLIST
INDIANA HARBOR OBSTRUCTION REMOVAL (continued)

G. EQUIPMENT REQUIRING OPERATIONAL CHECK:
1. _____
2. _____
3. _____
4. _____

H. WORKMANSHIP: Have procedures for accomplishing work been reviewed with CQC Rep & other appropriate people? YES____ NO____

I. PREVIOUS WORK: Has all preliminary work been accomplished in accordance with contract requirements and is this feature of work ready to start? YES____ NO____

Explain any problems: _____

_____
_____
_____
_____

J. OTHER COMMENTS: _____

_____
_____
_____
_____

_____
CONTRACTOR QC REPRESENTATIVE

Note: CQC = Contractor Quality Control

INITIAL INSPECTION CHECKLIST

INDIANA HARBOR OBSTRUCTION REMOVAL

Contract No: W912P6-04-C-0006 Date:

Description and Location of Work Inspected:

Specification Section:

Reference Contract Drawings:

A. PERSONNEL PRESENT:

Name	Position	Company
1) Arthur Rundzaitis	Construction Representative	USACE
2) Ed Wise	CQCSM	EQ

B. MATERIALS BEING USED ARE IN STRICT COMPLIANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS: YES_____ NO_____

IF NOT EXPLAIN:

INITIAL INSPECTION CHECKLIST

INDIANA HARBOR OBSTRUCTION REMOVAL (CONTINUED)

C. PROCEDURE AND/OR WORK METHODS WITNESSED ARE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS: YES_____ NO_____

IF NOT, EXPLAIN:

D. WORKMANSHIP IS ACCEPTABLE: YES____ NO_____

STATE AREAS WHERE IMPROVEMENT IS NEEDED:

E. SAFETY VIOLATIONS AND CORRECTIVE ACTION TAKEN:

_____

CONTRACTOR QC REPRESENTATIVE

APPENDIX D

LABORATORY CERTIFICATION

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
12565 WEST CENTER ROAD
OMAHA NE 68144-3869

REPLY TO
ATTENTION OF

December 22, 2003

RECEIVED
DEC 30 2003

Hazardous, Toxic and Radioactive Waste
Center of Expertise

Ms. Beth Lambert
STL North Canton
4101 Shuffel Drive, NW
North Canton, OH 44720

Dear Ms. Lambert:

This correspondence addresses the recent evaluation of STL North Canton of North Canton, OH for the U.S. Army Corps of Engineers (USACE) for chemical analysis in support of the USACE Hazardous, Toxic and Radioactive Waste Program.

Your laboratory is now validated for the parameters listed below:

METHOD(1)	PARAMETER	MATRIX(1)
9010B/9012A	Cyanide	Water(3)
9010B/9012A	Cyanide	Solids(3)
8151A	Herbicides	Water(3)
8151A	Herbicides	Solids(3)
7196A	Hexavalent Chromium	Water(3)
3060A/7196A	Hexavalent Chromium	Solids(3)
413.1	Oil & Grease	Water(3)
9071B	Oil & Grease	Solids(4)
3510C/3520C/8081A	Organochlorine Pesticides	Water(3)
3540B/3550B/3541/8081A	Organochlorine Pesticides	Solids(3)
3510C/3520C/8141A	Organophosphorous Pesticides	Water(4)
3540B/3541/8141A	Organophosphorous Pesticides	Solids(3)
3510C/3520C/8082	Polychlorinated Biphenyls	Water(3)
3540B/3550B/3541/8082	Polychlorinated Biphenyls	Solids(3)
3510C/3520C/8310	Polynuclear Aromatic Hydrocarbons	Water(3)
3540B/3550B/3541/8310	Polynuclear Aromatic Hydrocarbons	Solids(3)
3510C/3520C/8270C	Semivolatile Organics	Water(3)
3540B/3550B/3541/8270C	Semivolatile Organics	Solids(3)

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3005A/3010A/6010B/7470A	TAL Metals(5)	Water(3)
3050B/6010B/7471A	TAL Metals(5)	Solids(3)
3005A/3010A/6020/7470A	TAL Metals(5)	Water(3)
3050B/6020/7471A	TAL Metals(5)	Solids(3)
3510C/3520C/Mod 8015	TPH - DRO	Water(3)
3540B/3550B/3541/Mod 8015	TPH - DRO	Solids(3)
5030B/5035/Mod 8015	TPH - GRO	Water(3)
5035/Mod 8015	TPH - GRO	Solids(3)
5030B/5035/8021B	Volatile Organics	Water(3)
5035/8021B	Volatile Organics	Solids(3)
5030B/5035/8260B	Volatile Organics	Water(3)
5035/8260B	Volatile Organics	Solids(3)

Remarks:

1) Sample preparation methods have been added to reflect program policy change.

2) "Solids" includes soils, sediments, and solid waste.

3) The laboratory has successfully analyzed a Proficiency Testing (PT) sample for this method/matrix.

4) Approval for this parameter is based on review of SOPs and PT results of another matrix only.

5) TAL Metals: Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.

Based on the acceptable past performance, successful analysis of the National Environmental Laboratory Accreditation Conference Proficiency Testing samples and review of SOPs and laboratory Quality Management documentation, your laboratory will be validated for sample analysis by the methods listed above. The evaluation, which was conducted for your facility, is based substantially on ISO Guide 25 (General Requirements for the Competence of Testing Laboratories) and USACE Engineering Manual (EM) 200-1-3, Appendix I (Shell for Analytical Chemistry Requirements). The period of validation is 24 months and expires on December 22, 2005.

The USACE reserves the right to conduct additional laboratory inspections or to suspend validation status for any or all of the listed parameters if deemed necessary. It should be noted that your laboratory may not subcontract USACE analytical work to any other laboratory location without the approval of this office. This laboratory validation does not guarantee the delivery of any analytical samples from a USACE Contracting Officer Representative.

Any questions or comments can be directed to Chung-Rei Mao at (402) 697-2570. General questions regarding laboratory validation may be directed to the Laboratory Validation Coordinator at (402) 697-2574.

Sincerely,

for Marcia C. Davies, Ph.D.
Director, USACE Hazardous,
Toxic and Radioactive Waste
Center of Expertise

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
12565 WEST CENTER ROAD
OMAHA NE 68144-3869

REPLY TO
ATTENTION OF

June 1, 2004

Hazardous, Toxic and Radioactive Waste
Center of Expertise

Pamela Schemmer
STL Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

Dear Ms. Schemmer:

This correspondence addresses the ongoing validation status of STL Sacramento of West Sacramento, CA by the U.S. Army Corps of Engineers (USACE) for chemical analysis in support of the Hazardous, Toxic and Radioactive Waste Program.

Your laboratory is now validated for the parameters listed below:

METHODS	PARAMETERS	MATRIX(1)
IO-3/6020/TSP(2)	TAL Metals(3)	Air(4)
6010B/7000A(5)	TAL Metals(3)	Water(6)
6010B/7000A(5)	TAL Metals(3)	Solids(6)
6020/7470A	TAL Metals(3)	Water(6)
6020/7471A	TAL Metals(3)	Solids(6)
8015M	Total Petroleum Hydrocarbons – Gasoline Range Organics	Water(6)
8015M	Total Petroleum Hydrocarbons – Gasoline Range Organics	Solids(6)
8015M	Total Petroleum Hydrocarbons – Diesel Range Organics	Water(6)
8015M	Total Petroleum Hydrocarbons – Diesel Range Organics	Solids(6)
8021B	Benzene, Toluene, Ethylbenzene, and Xylenes	Water(6)
8021B	Benzene, Toluene, Ethylbenzene, and Xylenes	Solids(4)
8081A	Organochlorine Pesticides	Water(6)
8081A	Organochlorine Pesticides	Solids(6)
TO-4A/1668A(7)	Polychlorinated Biphenyls-Congeners	Air(4)
8082	Polychlorinated Biphenyls	Water(6)
8082	Polychlorinated Biphenyls	Solids(6)
8151A	Chlorinated herbicides	Water(6)
TO-14A/15(8)	Volatile Organics	Air(4)
8260B	Volatile Organics	Water(6)
8260B	Volatile Organics	Solids(6)
8270C	Semivolatile Organics	Water(6)
8270C	Semivolatile Organics	Solids(6)

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TO-13A[8]	Polynuclear Aromatic Hydrocarbons	Air[4]
8270C SIM	Polynuclear Aromatic Hydrocarbons	Water[4]
8270C SIM	Polynuclear Aromatic Hydrocarbons	Solids[4]
TO-9A[8]	Dioxins	Air[4]
8280A	Dioxins	Water[4]
8280A	Dioxins	Solids[6]
8290	Dioxins	Water[6]
8290	Dioxins	Solids[6]
8310	Polynuclear Aromatic Hydrocarbons	Water[6]
8310	Polynuclear Aromatic Hydrocarbons	Solids[6]
8321A	Explosives	Water[6]
8321A	Explosives	Solids[4]
8330	Explosives	Water[6]
8330	Explosives	Solids[4]
9012A	Cyanide	Water[6]
9012A	Cyanide	Solids[6]
314.0	Perchlorate	Water[6]
314.0	Perchlorate	Solids[4]
300.0/9056	Anions[9]	Water[6]
300.0/9056	Anions[9]	Solids[6]

Remarks: (1) "Solids" includes soils, sediments, and solid waste.

(2) TAL metals in collected total suspended particulate (TSP) matter from ambient air.

(3) TAL Metals: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.

(4) Approval for this parameter is based on review of SOPs and/or evaluation of PT results for other matrices.

(5) Method 7000A includes only Methods 7470A and 7471A for mercury in water and soil, respectively.

(6) The laboratory has demonstrated acceptable proficiency for the parameters/matrix/methods by successful analysis of proficiency testing (PT) samples from a NELAC accredited PT provider(s) or other reliable PT providers if a NELAC accredited PT provider is not available.

(7) Samples collected on PUF/XAD cartridge, followed by solvent extraction.

(8) Analysis of whole air sample collected in specially treated canister.

(9) Anions: chloride, fluoride, sulfate, nitrate, and orthophosphate.

Based on acceptable past performance of your laboratory, the validation of your laboratory is hereby extended from June 5, 2004 to September 30, 2004 to provide time to complete the revalidation process.

The USACE reserves the right to conduct additional laboratory inspections or to suspend validation status for any or all of the listed parameters if deemed necessary. It should be noted that your laboratory may not subcontract USACE analytical work to any other laboratory location without the approval of this office. This laboratory validation does not guarantee the delivery of any analytical samples from a USACE Contracting Officer Representative.

Any questions or comments can be directed to Richard Kissinger at (402) 697-2569. General questions regarding laboratory validation may be directed to the Laboratory Validation Coordinator at (402) 697-2574.

Sincerely,

for Marcia C. Davies, Ph.D.
Director, USACE Hazardous,
Toxic and Radioactive Waste
Center of Expertise

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
12565 WEST CENTER ROAD
OMAHA NE 68144-3869

REPLY TO
ATTENTION OF

April 22, 2004

Hazardous, Toxic and Radioactive Waste
Center of Expertise

Linda Sharpenberg
STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Dear Ms. Sharpenberg:

This correspondence addresses the recent evaluation of STL Los Angeles of Santa Ana CA by the U.S. Army Corps of Engineers (USACE) for chemical analysis in support of the USACE Hazardous, Toxic, and Radioactive Waste Program.

The USACE validates laboratories for ambient air parameters based on evaluation of laboratory documents and requested method Standard Operating Procedures (SOPs), Method Detection Limits (MDLs), control limits, and to the extent available, Proficiency Testing (PT) sample analysis results.

Your laboratory is now validated for the parameters listed below:

METHOD	PARAMETERS	MATRIX
TO-15	Volatile Organics	Air[1]

Remarks: 1) Compendium Method TO-15 using evacuated canister and GC/MS analysis for VOC measurements

Based on the submittal of acceptable SOPs, support documentation, PT sample analysis results and past performance on the Indiana Harbor and Canal Perimeter Air Monitoring Project, your laboratory will be validated for sample analysis by the methods listed above. The period of validation is 24 months and expires on April 22, 2006.

The USACE reserves the right to conduct additional laboratory inspections or to suspend validation status for any or all of the listed parameters if deemed necessary. It should be noted that your laboratory may not subcontract USACE analytical work to any other laboratory location without the approval of this office. This laboratory validation does not guarantee the delivery of any analytical samples from a USACE Contracting Officer Representative.

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Any question or comments can be directed to Kevin Coats at (402) 697-2563. General questions regarding laboratory validation may be directed to the Laboratory Validation Coordinator at (402) 697-2574.

Sincerely,

for Marcia C. Davies, Ph.D.
Director, USACE Hazardous,
Toxic and Radioactive Waste
Center of Expertise

IIIb Daily Const QC Reports & Checklists

CONSTRUCTION DOCUMENTATION REPORT

DAILY CONSTRUCITON QUALITY CONTROL REPORTS AND CHECKLISTS

VOLUME 3 of 4

INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY OBSTRUCTION REMOVAL

Prepared for:

U.S. Army Corps of Engineers
Chicago District
Calumet Area Office
906 Griffith Blvd.
Griffith, IN 46319

Contract No.: W912P6-04-C-0006
Specification Section: 01100
Submittal No.: 01100

Prepared by:

Environmental Quality Management, Inc.
1800 Carillon Blvd.
Cincinnati, Ohio 45240

January 2006

CONTENTS

Section		Location
I	As-Built Drawings (Specification 01100)	Attached Separately
II	Field and Laboratory Test Data	
	a. Laboratory Testing Reports (Specification 02115) for Canal Dredge Sediment & Water Analysis	Volume 1 of 4
	b. Analytical Test Results for Fill Borrow Sites (Specification 02231)	Volume 1 of 4
	c. Final Report for Fill Borrow Sites (Specification 02231)	Volume 1 of 4
	d. Closure Report – Site Assessment Report (Specification 02115)	Volume 2 of 4
II	Construction Quality Assurance Control Plan	
	a. Final Construction Quality Control Plan (Specification 01451)	Volume 1of 4
	b. Daily Construction Quality Control Reports and Checklists (Specification 01451)	Volume 3 of 4
IV	Air Monitoring Summary (Specification 01355)	Volume 4 of 4

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
1

DATE
19 Nov 2004 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site today. This was the first day of the contract.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
This was the first day of the contract. No work performed on-site today

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0001-01	Drug Free Workplace - Elect.
0001-02	Environmental Protection Plan
0001-03	Contractor Quality Control Plan
0001-04	APP/AHA/ H&S Plan (w/out Dive Plan)
0001-05	Dive Plan
0001-06	Construction Schedule - Base
0001-07-01	Construction Schedule - Month 1 Update
0001-08	Demolition Plan/Work Plan
0001-09	Bonds

No activities were finished today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 1

DATE 19 Nov 2004 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
ECM	SAFETY ENGINEER- ON SITE		1.0	0.0
ECM	SUPER- CONSTRUCTION		1.0	0.0
ECM	CONSTRUCTION INSPECTOR		1.0	0.0
Total hours worked to date:	0.0	Total	3.0	0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	[illegible]	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 8 Page 1 of 2 DATE 26 Nov 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Non Work Day Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site to date. This report covers the period of 112004 to 112604

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site today.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 8

DATE 26 Nov 2004 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	4/19/5	W.D	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 15 Page 1 of 2 DATE 03 Dec 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Non Work Day Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site to date. This report covers the period of 112704 to 120304

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site today

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 15 Page 2 of 2 DATE 03 Dec 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
22

DATE
10 Dec 2004 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site to date. This report covers the period of 120404 to 121004

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site today.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 22 Page 2 of 2 DATE 10 Dec 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS WIB	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
26

DATE
14 Dec 2004 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site to date. This report covers the period of 121104 to 121404

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site today

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 26 Page 2 of 2 DATE 14 Dec 2004 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
27

DATE
15 Dec 2004 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The Preconstruction Survey was started on this date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
Ed Wise,EQM, Todd Colochino EQM

General Comments:
No work performed on-site today.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ed Wise discussed safety issues related to the work.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 27

DATE 15 Dec 2004 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	W.O	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
28

DATE
16 Dec 2004 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The Preconstruction Survey continued.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
Ed Wise,EQM, Todd Colochino EQM

General Comments:
No work performed on-site today.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ed Wise discussed safety issues related to the work.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 28 Page 2 of 2
	DATE 16 Dec 2004 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
29

DATE
17 Dec 2004 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The Preconstruction Survey was completed.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
Ed Wise,EQM, Todd Colochino EQM, 2 Surveyors from DLZ Inc.

General Comments:
No work performed on-site today

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ed Wise discussed safety issues related to the work.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 29 Page 2 of 2 DATE 17 Dec 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 36

DATE 24 Dec 2004 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 121804 to 122404

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 36 Page 2 of 2 DATE 24 Dec 2004 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION

On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
43

DATE
31 Dec 2004 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 122504 to 123104

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 43

DATE 31 Dec 2004 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.O	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
50

DATE
07 Jan 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 010105 to 010705.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 50

DATE 07 Jan 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 57 Page 1 of 2 DATE 14 Jan 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Non Work Day Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 010805 to 011405.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 57

DATE 14 Jan 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	WD	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
64

DATE
21 Jan 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 011505 to 012105.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 64

DATE 21 Jan 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
71

DATE
28 Jan 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 012205 to 012805.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 71 Page 2 of 2 DATE 28 Jan 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
78

DATE
04 Feb 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 012905 to 020405.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 78 Page 2 of 2 DATE 04 Feb 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B.	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 85 Page 1 of 2 DATE 11 Feb 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Non Work Day Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 020505 to 021105.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 85 Page 2 of 2 DATE 11 Feb 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.D	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
92

DATE
18 Feb 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 021205 to 021805.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 92 Page 2 of 2 DATE 18 Feb 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION

On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/18/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
99

DATE
25 Feb 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 021905 to 022505.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 99

DATE 25 Feb 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVES SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
106

DATE
04 Mar 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 022605 to 030405.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 106 Page 2 of 2 DATE 04 Mar 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
113

DATE
11 Mar 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 030505 to 031105.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 113 Page 2 of 2 DATE 11 Mar 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.D.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
120

DATE
18 Mar 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 031205 to 031805.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 120 Page 2 of 2 DATE 18 Mar 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
127

DATE
25 Mar 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 031905 to 032505.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 127 Page 2 of 2 DATE 25 Mar 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
134

DATE
01 Apr 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Non Work Day
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 032605 to 040105.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 134

DATE 01 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	WB	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 141 Page 1 of 2 DATE 08 Apr 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Non Work Day Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 040205 to 040805.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
None.

General Comments:
No work performed on-site in the last week.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
None.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 141

DATE 08 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
144

DATE
11 Apr 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on-site during the period of 040905 to 041005. EQM mobilized to the site 041105 and began site set up.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, 2 Operators and 1 laborer from MDL

General Comments:
Work began on 041105

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
Equipment was inspected as it arrived on site. This was a dozer and a loader.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 144 Page 2 of 2
	DATE 11 Apr 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
145

DATE
12 Apr 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, 2 Operators and 1 laborer from MDI.

General Comments:
Work continued without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 145 Page 2 of 2
	DATE 12 Apr 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION	On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
QC REPRESENTATIVE'S SIGNATURE	DATE 4/19/5	SUPERINTENDENT'S INITIALS W.B	DATE 4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
146

DATE
13 Apr 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, Nick Mchailides EQM, 2 Operators and 1 laborer from MDI, 3 Security Officers from Task Force.

General Comments:
Work continued without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 146

DATE 13 Apr 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 148

DATE 15 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up. The area from about 30 foot north of the canal to the road was cleared.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 2 Operators and 1 laborer from MDI, 3 Security Officers from Task Force.

General Comments:
Apparently the City of East Chicago received a complaint of odors on the site. A councilman came to the site, and the fire department collected air samples. Nothing was found to be as source on site. The fire department truck got stuck and EQM pulled them out with the loader.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 148

DATE 15 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B.	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
149

DATE
16 Apr 2005 - Saturday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up. An excavator was received 041505. it was used to clear the trees and brush in the area 30 foot north of the canal.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 2 Operators and 1 laborer from MDI, 3 Security Officers from Task Force.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 149 Page 2 of 2 DATE 16 Apr 2005 - Saturday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVES SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 151 Page 1 of 2 DATE 18 Apr 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 56 °F, Max 79 °F; No Precipitation; 10 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up. Clearing was focused at areas near the canal and to the west side of the work area.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 2 Operators and 1 laborer from MDI, 3 Security Officers from Task Force.

General Comments:
EQ held the Project Coordination Meeting. Representatives from EQ, USACE, the City of East Chicago, Arcadis, SBC, and BP attended. Ed Wise chaired the meeting and presented the work scope. All attendees were pleased with the meeting and no concerns were raised.
Ed Wise identified another area where the Steel Sheet Pile (SSP) appears to be failing. The area is loacted at about Station 11+75. The area did not appear to be as seriously affected as the original location. EQ stated out the area and installed a crude line. Deflection of the wall was noted at ten locations (42 inches apart, precise stationing unknown). Location 10 had a 13" deflection, 11- 14 7/8", 12- 15 3/8", 13- 16 3/4", 14- 16 3/8", 15- 16 3/8", 16- 14 3/8", 17- 13 3/4", and 18- 8 3/4". EQ spray painted marks aligning the wall with surrounding soils to improve the ability to deferentiate continued shifting. Arthur Rundzaitis was informed of this. While clearing work was performed in this area on 041605, it was obvious from the water staining, and other factors, that the settling had occured some time ago. Before the last major rainfall event at a minimum. Numerous photos were taken.

Verbal Instructions given by Government:
EQ volunteered to install the line at the failing SSP location and informed USACE of the problem. USACE is to look into response options.
John Breslin, Arthur Rundzaitis, and Natalie Mills agreed that severed pipes from Obstruction removal should be grouted shut vs plugged with mechanical plugs. Concrete slabs will be probed and a hole created in them to verify they are not lids over vaults. EQ will use excavet soil from Obstruction removal to backfill those areas. Also note the Preparatory Phase Meeting notes for additional agreements.

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

A preparatory inspection was held today for the following feature:
Obstruct Removal-Pipe Removal

No initial inspections were held today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 151 Page 2 of 2 DATE 18 Apr 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 0.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/19/5	W.B	4-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 152 Page 1 of 2 DATE 19 Apr 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC	WEATHER Weather Caused No Delay Temperature Min 80 °F, Max 58 °F; No Precipitation; 17 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with project set up. Clearing was focused at areas near the canal and to the west side of the work area. The project and safety sign were installed. EQ also removed one bollard, and two fire hydrants. The bollard was removed entirely. The fire hydrants were connected and removed as a pair. The open end of the line was about 4.5 ft deep and was grouted shut. This was somewhat difficult as the pipe drained substantial water, and the hole was filling quickly with groundwater.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 2 Operators and 2 laborers from MCI, 3 Security Officers from Task Force.

General Comments:
John Breslin was on site to inspect the failing wall section. EQ assisted with this task.
EQ was also informed of a visit by a East Chicago Councilman and an aide. They were apparently very concerned with the safety of the security officers and requested copies of the security contract. They arrived on-site at about 09:45 pm on 041805. There is a continuing trend for their interest in the security contract.

Verbal Instructions given by Government:
John Breslin requested information on Thatcher's ability to drive anchor piles for the newer failed wall section

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 152 Page 2 of 2 DATE 19 Apr 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EGM	SUPER- JOB		1.0	10.0
EGM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	20.0	Total	2.0	20.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/2045	WB	4-25-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 153 Page 1 of 2 DATE 20 Apr 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 41 °F, Max 58 °F; 0.1 IN Precipitation; 18 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. EQ removed one fire hydrant, three valves, and four bollards, and two fire hydrants. The pipes were grouted shut within specified limits. the bollards were either cut 1.5 ft below grade or removed entirely. Attached is a summary table showing the items removed to date.
Thatcher was onsite to assemble the crane. The majority of this work was completed.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 1 Operators and 2 laborers from MCI, 3 Security Officers from Task Force and about 10 representatives from Thatcher Engineering.

General Comments:
Work proceeded without significant issues. The preparatory phase meeting for fender removal was scheduled for 07:00 am on 042105.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 153

DATE 20 Apr 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EOM	SUPER- JOB		1.0	10.0
EOM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	40.0	Total	2.0	20.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/25/05	W.O	4-25-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
154

DATE
21 Apr 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 58 °F, Max 45 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. Six bollards and six 24' concrete pads were removed. Attached is a summary table showing the items removed to date.
Thatcher was not onsite to assemble the crane.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, 1 Operators and 2 laborers from MDI, 3 Security Officers from Task Force Security.

General Comments:
Work proceeded without significant issues. EQ focused at demolition of obstructions. Six bollards and six 24" concrete pads were removed. note the attached summary table.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 154

DATE 21 Apr 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EGM	SUPER - JOB	1.0	10.0
EGM	CONSTRUCTION INSPECTOR	1.0	10.0
	Total	2.0	20.0

Total hours worked to date: 60.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
XXX	Excavator	0.0	10.0
YYY	Loader	10.0	0.0
	Total	10.0	10.0

Total operating hours to date: 10.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/26/15	WJB	4-26-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042105 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	FW Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	FW Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was removed entirely.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9817.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) h pile and was removed entirely.
None	Concrete Pads	None	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 155 Page 1 of 2 DATE 22 Apr 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused Non-Critical Delay Temperature Min 48 °F, Max 37 °F, 0.59 IN Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. Six bollards were removed. rain impacted work, but EQ was able to get a 8 hour work day in.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
Ed Wise EQM, 1 Operator and 1 laborer from MDI, 3 Security Officers from Task Force Security.

General Comments:
Work proceeded without significant issues. EQ focused at demolition of obstructions. Six bollards were removed. Note the attached summary table. No other work was performed.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ed Wise conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 155

DATE 22 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
ECM	SUPER- JOB		0.0	0.0
ECM	CONSTRUCTION INSPECTOR		1.0	8.0
		Total	1.0	8.0

Total hours worked to date: 68.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
XXX	Excavator		0.0	8.0
YYY	Loader		10.0	0.0
		Total	10.0	8.0

Total operating hours to date: 18.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/26/5	WIB	4-26-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042205 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	FW Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	FW Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	None	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	12	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19	7	31	13	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15	7	31	14	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15	7	31	15	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11	7	31	16	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	17	4/22/2005	This bollard was removed entirely.

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 158

DATE 25 Apr 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 64 °F, Max 44 °F; No Precipitation; 11 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. One bollard, 3 hydrants, and 3 hydrant valves were removed. Attached is a summary table showing the items removed to date.
Thatcher was not onsite to assemble the crane.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM| Ed Wise EQM| Ben Letany EQM| 1 Operator and 1 laborer from MDI, 3 Security Officers from Task Force Security.

General Comments:
Work proceeded without significant issues. EQ focused at demolition of obstructions. Note the attached summary table.

Verbal Instructions given by Government:
USACE indicated that the hydrant valves could be left in place. These were sealed and not leaking. They were below one ft below grade, but above 3 ft.

Safety Inspection / Safety Meetings:
Ben Letant conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 158

DATE 25 Apr 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P8-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	LABORERS		1.0	10.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	OPERATING ENGINEER		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	118.0	Total	5.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
XXX	Excavator		2.0	8.0
YYY	Loader		8.0	2.0
Total operating hours to date: 28.0		Total	10.0	10.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/26/5	L.O	4-26-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042505 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	None	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	12	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19	7	31	13	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15	7	31	14	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15	7	31	15	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11	7	31	16	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	17	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Qualily Management
042505 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29	7	31	18	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 159 Page 1 of 2 DATE 26 Apr 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 55 °F, Max 37 °F, No Precipitation; 8 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. One bollard was removed (9776). EQ also removed numerous tree stumps and excavated around a manhole, the pit and trench structures. Attached is a summary table showing the items removed to date. E Wise also discovered that bollard 9756 which was removed 042105 was inadvertantly omitted from the summary tables. These were updated. Thatcher was onsite and completed assembly of the crane.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 8 personnel from thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Work proceeded without significant issues. EQ focused at demolition of obstructions. Note the attached summary table.

Verbal Instructions given by Government:
EQ discussed the removal of bollard 9776. This was located very near the SSP wall and EQ was concerned removal activities would damage the wall. USACE instructed EQ to cut the bollard as near to its concrete base as possible and cap the area. The bollard was cut about 6" deep and removed.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coring work.

Safety: (Inspections made, Deficiencies noted):
A crane inspections was performed on the Manitowoc 4000, including a lift test. No deficiencies were found.

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 159

DATE 26 Apr 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EOM	LABORERS		1.0	10.0
EOM	SAFETY ENGINEER - ON SITE		1.0	10.0
EOM	SUPER - JOB		1.0	10.0
EOM	OPERATING ENGINEER		1.0	10.0
EOM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	168.0	Total	5.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		2.0	8.0
N3F000553	Loader		8.0	2.0
40175	Crane		7.0	1.0
Total operating hours to date: 39.0		Total	17.0	11.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/27/5	W.B	4-27-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042605 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	None	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042605 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 160 Page 1 of 2 DATE 27 Apr 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 39 °F, Max 55 °F; No Precipitation; 15 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. Work was focused at transferring debris to areas closer to the road. The SW corner of the site was also cleared. Five additional 24" Concrete Pads were also removed (a total of 11 to date), 4 estimated by USACe in the bid spec). Attached is a summary table showing the items removed to date. Thatcher was onsite and began removal of the SSPwall fenders and accessories.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 6 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Work proceeded without significant issues. EQ focused at demolition of obstructions. Note the attached summary table.

Verbal Instructions given by Government:
EQ discussed the removal of the man hole near station 15+50. This item is free flowing water from an unknown source. EQ recommended either filling this unit with bentonite or concrete to restrict water flow. USACE is to evaluate the options and direct EQ. This item will be left until this feedback is received.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0001-11	Mobe - Bumpers
0016-01	Fenders, Removal

The following activity was finished today:

Activity No	Description
0019-01	Pre-Construction Survey

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 160

DATE 27 Apr 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	LABORERS	1.0	10.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	10.0
EQM	OPERATING ENGINEER	1.0	10.0
EQM	CONSTRUCTION INSPECTOR	1.0	10.0
	Total	5.0	50.0

Total hours worked to date: 218.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
LE03-U0282	Excavator	2.0	8.0
N3F000553	Loader	8.0	2.0
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
	Total	18.0	18.0

Total operating hours to date: 57.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	4/27/5	W.B	4-28-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042705 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	None	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042705 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 161 Page 1 of 2 DATE 28 Apr 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC	WEATHER Weather Caused No Delay Temperature Min 36 °F, Max 55 °F; No Precipitation; 12 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. Three pipes were removed (9753 and two unnumbered others). Thatcher removed 256 linear feet of fenders and accesories (373 ft to date). A six inch I beam was found welded to the SSP wall at about Sta.13+60. Thatcher switched to the smaller crane from the Manitowoc for this work. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 5 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
An EPA representative (Walter Ned) was on-site to inspect the Arcadis system and our work. he suggested that we place sorbent pads on the ground to soak up free oil. he also requested that we call him when we began excavation of the canal pipes. Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 161

DATE 28 Apr 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
ECM	LABORERS		1.0	10.0
ECM	SAFETY ENGINEER - ON SITE		1.0	10.0
ECM	SUPER - JOB		1.0	10.0
ECM	OPERATING ENGINEER		1.0	10.0
ECM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	268.0	Total	5.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		2.0	8.0
N3F000553	Loader		8.0	2.0
40175	Crane		8.0	0.0
74167	Small Crane		0.0	8.0
Total operating hours to date: 75.0		Total	18.0	18.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/1/15	LMO	5-2-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042805 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

iHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042805 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,26,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe	83	D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D3 32-41, D4 20-22, 24-27	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 162 Page 1 of 2 DATE 29 Apr 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 54 °F, Max 42 °F; No Precipitation; 8 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. One bollard (9791) and one valve (9792) were removed. Thatcher removed 346 linear feet of fenders and accesories (719 ft to date). Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 4 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Doug Anderson and Arthur Rundzaitis were on-site for an inspection. We discussed the flooded manhead, SSP I beam, and structure closure methods. No conclusive decisions were made. USACE is to evaluate the options and direct EQM. Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coring work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 162

DATE 29 Apr 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912R6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
BCM	LABORERS		1.0	8.0
BCM	SAFETY ENGINEER - ON SITE		1.0	8.0
BCM	SUPER - JOB		1.0	8.0
BCM	OPERATING ENGINEER		1.0	8.0
BCM	CONSTRUCTION INSPECTOR		1.0	5.0
Total hours worked to date: 305.0		Total	5.0	37.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		0.0	8.0
NBF000553	Loader		8.0	0.0
40175	Crane		8.0	0.0
74167	Small Crane		0.0	8.0
Total operating hours to date: 91.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/1/5	W.B	5-2-05

IHCDF Obstruction Removal
Summery of Obstructions Removed
Environmental Quality Management
042905 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
042905 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 165 Page 1 of 2 DATE 02 May 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 50 °F, Max 33 °F; No Precipitation; 9 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. No land side obstructions were removed. EQ excavated structures 4 and 3, and Valve 9838. None were completed. Thatcher found an area of the SSP wall with no fenders or accessories. They were able to clear 919 linear feet of wall due to this. This was the entire west end of the wall (newer section).. They have cleared a total of 1638 linear feet to date. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 5 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security..

General Comments:
No work performed on Saturday or Sunday. EQ discovered that Task Force had an accident with their vehicle on 042905. They apparently backed into the USACE trailer. there was substantial damage to their vehicle, but negligible to the trailer. Ed Wise took several photos of each. An incident report will be filed. Todays work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 165

DATE 02 May 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
ECM	LABORERS		1.0	8.0
ECM	SAFETY ENGINEER - ON SITE		1.0	8.0
ECM	SUPER - JOB		1.0	8.0
ECM	OPERATING ENGINEER		1.0	8.0
ECM	CONSTRUCTION INSPECTOR		1.0	8.0
Total hours worked to date:	345.0	Total	5.0	40.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		0.0	8.0
N3F000553	Loader		8.0	0.0
40175	Crane		8.0	0.0
74167	Small Crane		0.0	8.0
Total operating hours to date: 107.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[illegible]	5/2/5	K.B	5-3-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050205 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050205 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753.
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1167	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 166 Page 1 of 2 DATE 03 May 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 33 °F, Max 54 °F, No Precipitation; 12 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. EQM completed demolision of Valve 9838, Structure 6, and Structure 2. Additional work was performed on Structure 3,4 and 7, as well as the Pit/Vault (9807). Thatcher continued with demo of the fenders. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 5 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
An additional excavator and hammer were received. These were inspected and found to be in good order. Todays work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
William Brunston conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 166

DATE 03 May 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EOM	LABORERS	1.0	10.0
EOM	SAFETY ENGINEER - ON SITE	1.0	10.0
EOM	SUPER - JOB	1.0	10.0
EOM	OPERATING ENGINEER	1.0	10.0
EOM	CONSTRUCTION INSPECTOR	1.0	10.0
	Total	5.0	50.0

Total hours worked to date: 395.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
LB03-U0282	Excavator	0.0	10.0
N3F00553	Loader	8.0	0.0
40175	Crane	8.0	0.0
74167	Small Crane	0.0	8.0
320-H158	Hammer for excavator	0.0	4.0
14C-84521	Excavator for Hammer	0.0	4.0
	Total	16.0	26.0

Total operating hours to date: 133.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/3/5	W.B.	5-4-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050305 Version, PAGE 1

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Removed completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050305 Version, PAGE 2

DLZ Item #	Descrip.	Survey Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1167	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)
9838	Valve	60,62	D5 11-28	11	2	2	5/3/2005	This valve had a tee on the west end. All three exit pipes were removed and grouted.
None	Structure 6	61,62	D5 11-28	13AD	1	1	5/3/2005	This structure was over excavated. The debris was removed and it was filled with 53 and top soil.
None	Structure 2	None	D5 32-39,61-65	13AA	1	1	5/3/2005	This was an electrical junction. All concrete to 1.5 ft deep wasdemolished and used as backfill.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1387	5/2/2005	220 Feet of Fenders and Accessories were removed completely.

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 167 Page 1 of 2 DATE 04 May 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 40 °F, Max 63 °F; No Precipitation; 6 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

EQM continued with demolition of the obstructions. EQM completed demolision of Structure 3. Demo work was also performed on Structure 4 and the maze of vaults NE of this area. Thatcher relocated 7 tanks from Tierra. No fenders were removed today. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?

No.

Work Force, Personnel On Site

William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 5 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security

General Comments:

EQ completed demolision of Structure 3. Work was also accomplished on Structure 4 and the maze of vaults NE of this area. This area may have been the location of a cooling tower bank. Thatcher relocated 7 tanks to be used for decon and dewatering purposes from Tierra to the project site. Todays work proceeded without incident.

Verbal Instructions given by Government:

None

Safety Inspection / Safety Meetings:

Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):

None

Safety: Corrective Action taken:

None.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 167

DATE 04 May 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	LABORERS		1.0	10.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	OPERATING ENGINEER		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	445.0	Total	5.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		8.0	2.0
N3F000553	Loader		8.0	0.0
40175	Crane		8.0	0.0
74167	Small Crane		0.0	8.0
320-H158	Hammer for excavator		2.0	8.0
14C-84521	Excavator for Hammer		2.0	8.0
Total operating hours to date: 159.0		Total	28.0	26.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/5/5	[signature]	5/5/5

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050405 Version, PAGE 1

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050405 Version, PAGE 2

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset, It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1167	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)
9838	Valve	60,62	D5 11-28	11	2	2	5/3/2005	This valve had a tee on the west end. All three exit pipes were removed and grouted.
9836	Structure 6	61,62	D5 11-28	13AD	1	1	5/3/2005	This structure was over excavated. The debris was removed and it was filled with 53 and top soil.
None	Structure 2	40	D5 32-39,61-65	13AA	1	1	5/3/2005	This was an electrical junction. All concrete to 1.5 ft deep wasdemolished and used as backfill.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1387	5/3/2005	220 Feet of Fenders and Accessories were removed completely.
None	Structure 3	41	D5 40-47,85-90,97-99,101-106	13AB	1	1	5/4/2005	This structure was adjacent and intergral to Struct. 4. It was demo'd to 1.5 ft below grade and filled.

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 168

DATE 05 May 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 44 °F, Max 63 °F, No Precipitation; 6 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with demolition of the obstructions. EQM completed demolision of Structure 7 nad 8. Demo work was also performed on the man hole at Station 15+25, Structure 4 and the maze of vaults NE of this area. Thatcher worked on the SSP drive template and installed the turbidity curtain. No fenders were removed today. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 6 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Todays work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ed Wise conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 168

DATE 05 May 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	LABORERS		1.0	10.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	OPERATING ENGINEER		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Total hours worked to date:	495.0	Total	5.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-L0282	Excavator		8.0	2.0
NBF000553	Loader		8.0	0.0
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
320-H158	Hammer for excavator		2.0	8.0
14C-84521	Excavator for Hammer		2.0	8.0
Total operating hours to date: 185.0		Total	28.0	26.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/6/5	[signature]	5/6/5

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050505 Version, PAGE 1

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050505 Version, PAGE 2

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE)
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE)
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE)
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE)
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								It was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1167	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)
9838	Valve	60,62	D5 11-28	11	2	2	5/3/2005	This valve had a tee on the west end. All three exit pipes were removed and grouted
9836	Structure 6	61,62	D5 11-28	13AD	1	1	5/3/2005	This structure was over excavated. The debris was removed and it was filled with 53's and top soil
None	Structure 2	40	D5 32-39,61-65	13AA	1	1	5/3/2005	This was an electrical junction. All concrete to 1.5 ft deep wasdemolished and used as backfill
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1387	5/3/2005	220 Feet of Fenders and Accessories were removed completely
None	Structure 3	41	D5 40-47,85-90,97-99,101-106	13AB	1	1	5/4/2005	This structure was adjacent and intergral to Struct. 4. It was demo'd to 1.5 ft below grade and filled
None	Structure 7	67	D5 29-31,D6 12,13,16,17	13AE	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled
None	Structure 8	70	D5 14,15	13AF	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 169 Page 1 of 2 DATE 06 May 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 53 °F, Max 74 °F; No Precipitation; 13 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

EQM continued with demolition of the obstructions. EQM completed demolision of Structure 4, two ipes due west of Structure 4, and the pit/vault maze. We also began demo of the manhole near station 15+25. Thatcher worked on installation of the drive template and false work. No fenders were removed today. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?

No.

Work Force, Personnel On Site

Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 7 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:

Todays work proceeded without incident. Doug Anderson was on-site from about 13:00 to 14:00 to inspect the work. The loader and excavator with hammer were demobbed from the site. EQ received a Cat 320 excavator with thumb.

Verbal Instructions given by Government:

None

Safety Inspection / Safety Meetings:

Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):

None

Safety: Corrective Action taken:

None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 169

DATE 06 May 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE		1.0	9.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Maintenance Dynamics	LABORERS		1.0	9.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	9.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		3.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	8.0
Total hours worked to date:	554.0	Total	11.0	59.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
LB03-U0282	Excavator		8.0	0.0
N3F000553	Loader		3.0	6.0
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
320-H158	Hammer for excavator		6.0	3.0
14C-84521	Excavator for Hammer		6.0	3.0
Total operating hours to date: 205.0		Total	31.0	20.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	5/4/5	W.D.	5-9-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 172

DATE 09 May 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 58 °F, Max 75 °F; No Precipitation; 17 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM worked on transfer of debris to the debris stockpile. No obstructions were removed. Thatcher worked on installation of the SSP around area 3. No fenders were removed today. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator, 1 laborer, and two truck drivers from MDI, 8 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Todays work proceeded without incident. EQ received two semi dump trucks for transfer of debris to the stockpile (actual arrive date was Saturday).

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0007-02	24" Concrete Fille Pipes Disposal
0008-02	24" Dia. Concrete Pads, Disposal
0009-02	Gate Valves, Disposal
0010-02	Water Valves, Disposal
0011-02	Valves, Disposal
0012-02	4"-12" Pipes, Disposal
0014-02	Hydrants, Disposal
0016-02	Fenders, Disposal

No activities were finished today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 172

DATE 09 May 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Maintenance Dynamics	LABORERS		1.0	10.0
Maintenance Dynamics	TRUCK DRIVER, GROUP 1		2.0	10.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	10.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		3.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	8.0
Total hours worked to date:	638.0	Total	14.0	84.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 205.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	6/10/5	W.B.	6-10-05

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050605 Version, PAGE 1

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9865	Bollard	None	2 to 12, D3 49	7	31	1	4/19/2005	Completely removed. About 4.5 ft of concrete pad, rebar and vertical pole timber.
9862	Hydrant Valve	71	17,21-23	10	2	1	4/19/2005	This was the valve for 9863. Inlet pipe cut at 4.5 ft below grade and grouted.
9863	Hydrant	72	13,17,19,21-23	14	4	1	4/19/2005	Inlet pipe led to 9862, grouted as 9862 inlet. Romoved completely with block.
9806	Valve	42	32-36,38-42,46,47,99,100	9	3	1	4/20/2005	9806 and 9806B were nested together on one line. 9806B formed a loop around 9806, both
								valve stems above grade, removed both entirely and grouted both ends about 2' below grade.
9806B	Valve	42	32-36,38-42,46,47,99,100	9	3	2	4/20/2005	9806B was not identified during the initial survey. It was located 3 ft nw of 9806. It was a
								vavle stem sticking above grade and about 1 ft up.
9818	Hydrant	43	45,48-54	14	4	2	4/20/2005	The hydrant was set in a surge block. The top of the block was about 3.5 ft below grade.
								The hydrant was removed at the top of the block and grouted. Note 9818B
9818B	Hydrant Valve	43	45,48-54	10	2	2	4/20/2005	This FW valve was near 9818 but isolated by another pipe. It was cut about 3.5 ft deep and grouted.
9819	Bollard	12	55-58,62-64,88,90	7	31	2	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken. Located adjacent to 9820.
9774	Bollard	12	59,60,85	7	31	3	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9774B	Bollard	None	61,86,87	7	31	4	4/20/2005	This bollard was removed entirely.
9817	Bollard	9	62-64,90,92	7	31	5	4/20/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9820	Bollard	11	73,74,77,78,88,89	7	31	6	4/21/2005	This bollard was removed entirely. Located adjacent to 9819.
9801	Bollard	8	79,101,111	7	31	7	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9800	Bollard	None	102-107,110	7	31	8	4/21/2005	This bollard was removed entirely.
9797	Bollard	None	80,98,	7	31	9	4/21/2005	This bollard was saw cut about 1.5 ft below grade and broken.
9796	Bollard	None	81-83,96,97	7	31	10	4/21/2005	This was a hollow steel pipe bollard and was removed entirely.
9828	Bollard	6	84,93-95,120-123	7	31	11	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
9756	Bollard	None		7	31	12	4/21/2005	This bollard was installed on a 30 ft (approx) H pile and was removed entirely.
None	Concrete Pads	27	124,125	8	4	6	4/21/2005	This was 6 of 9' Concrete Pads in the SW corner of the site. Apparently from a previus pipe support.
9777	Bollard	None	D2 15,19,20,D3 4,21	7	31	13	4/22/2005	This bollard was removed entirely.
9854	Bollard	None	D3 5,6,18,19,52	7	31	14	4/22/2005	This bollard was removed entirely.
9853	Bollard	None	D3 7,8,14,15,51	7	31	15	4/22/2005	This bollard was removed entirely.
9858	Bollard	None	D2 8,D3 1-3,14,15,50	7	31	16	4/22/2005	This bollard was removed entirely.
9866	Bollard	None	D2 6,D3 10,11,D3 48	7	31	17	4/22/2005	This bollard was removed entirely.
9867	Bollard	None	D2 3-5,D3 9,11	7	31	18	4/22/2005	This bollard was removed entirely.

IHCDF Obstruction Removal
Summary of Obstructions Removed
Environmental Quality Management
050605 Version, PAGE 2

DLZ Item #	Descrip.	USACE Photo #'s	Demo Photo #'s	Pay Item #	USACE Est Quantity	Item Quantity to Date	Date Removed	Comments
9842	Bollard	None	D2 11,13, D3 20,28,29,53	7	31	19	4/25/2005	This bollard was removed entirely.
9835	Hydrant Valve	None	D2 12, D3 30-33	10	2	3	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9855	Hydrant	None	D3 44,45,52	14	4	3	4/25/2005	This hydrant was removed entirely and grouted at abot 3 ft deep.
9868	Hydrant Valve	74	D2 3-5, D3 36-38,47	10	2	4	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9869	Hydrant	73	D2 3-5, D3 34,39,47	14	4	4	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9872	Hydrant Valve	None	D3 40-43,46	10	2	5	4/25/2005	The valve stem was removed and the valve was left in place (per USACE).
9873	Hydrant	None	D3 40-43,46	14	4	5	4/25/2005	This hydrant was removed entirely and grouted at abot 3.5 ft deep.
9776	Bollard	None	D2 16,17,D3 55,56 ,59,60	7	31	20	4/26/2005	This bollard was cut about 6" below grade and broken off (per USACE).
None	Concrete Pads	27	D3 81-84	8	4	11	4/27/2005	These were the final 24" concrete pads. Originally thought to be 9, 11 total found and removed.
None	SSP Fenders	80-82	D4 76-79	16	1983	117	4/27/2005	117 Feet of Fenders and Accessories were removed completely.
9753	Pipe	26	D3 80,D41,3,4,11,12,19	12	5	1	4/28/2005	This pipe was filled with water, cut 3' below grade and grouted
9753 B	Pipe		D4 2,3,9,10,13-18	12	5	2	4/28/2005	This pipe not located previously. It was located about 15 ' north and 15' east of 9753
								it was filled with water, cut 3' below grade and grouted
9753 C	Pipe		D4 32-41	12	5	3	4/28/2005	This pipe not located previously. It was located about 49 ' north of the canal and 2' east of the
								west SSP inset. It was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	373	4/28/2005	256 Feet of Fenders and Accessories were removed completely. 6" I beam found at 13+60
9791	Bollard	7,28	D4 28,47-49,51	7	31	21	4/29/2005	This bollard was removed entirely.
9792	Valve	7,28	D4 28,42-46,48,50-52	11	2	1	4/29/2005	This valve was filled with water, cut 3' below grade and grouted
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	719	4/29/2005	346 Feet of Fenders and Accessories were removed completely.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1167	5/2/2005	919 Feet of Fenders and Accessories were removed completely (some had portions had no fenders)
9838	Valve	60,62	D5 11-28	11	2	2	5/3/2005	This valve had a tee on the west end. All three exit pipes were removed and grouted.
9836	Structure 6	61,62	D5 11-28	13AD	1	1	5/3/2005	This structure was over excavated. The debris was removed and it was filled with 53's and top soil.
None	Structure 2	40	D5 32-39,61-65	13AA	1	1	5/3/2005	This was an electrical junction. All concrete to 1.5 ft deep wasdemolished and used as backfill.
None	SSP Fenders	80-82	D3 76-79,D4 20-22	16	1983	1387	5/3/2005	220 Feet of Fenders and Accessories were removed completely.
None	Structure 3	41	D5 40-47,85-90,97-99,101-106	13AB	1	1	5/4/2005	This structure was adjacent and intergral to Struct. 4. It was demo'd to 1.5 ft below grade and filled.
None	Structure 7	67	D5 29-31,D6 12,13,16,17	13AE	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled.
None	Structure 8	70	D5 14,15	13AF	1	1	5/5/2005	This structure was demo'd to 1.5 ft below grade and filled.
None	Structure 4	36-39	D5 40-47,85-90,97-99,101-106	13AC	1	1	5/6/2005	This structure was demo'd to 1.5 ft below grade and filled.
			D6 2, 18,22,27					
None	Pipe	None	D6 21,23-26	12	5	5	5/6/2005	These were the two pipes due west of structure 4. About 10" within pipe sleeves.
9807	Pit/Vault	None	D3 71-74, D52-60, 93-96,100	20	1	1	5/6/2005	The pay item is for one vault. A series of vaults was found in this area, all demo'd and filled.
			D6 3,19,20					

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
173

DATE
10 May 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM worked on transfer of debris to the debris stockpile. No obstructions were removed. EQ also place the liner for the dredge spoil dewatering cell at area 3. Thatcher worked on installation of the SSP around area 3. No fenders were removed today Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
No.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, Larry Elfers EQM, 1 Operator, 1 laborer, and two truck drivers from MDI, 2 laborers from Griffin, 8 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Thatcher received their dredge bucket . Todays work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0018-01	Construction Emissions Air Monitoring, Set up

No activities were finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 173

DATE 10 May 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

Today was the first day on site for the following contractor:
Griffin Dewatering

No contractors had their last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	10.0
EQM	ENVIRON-CNTRL-SYS INST/SER	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	10.0
Griffin Dewatering	LABORERS	2.0	8.0
Maintenance Dynamics	LABORERS	1.0	10.0
Maintenance Dynamics	TRUCK DRIVER, GROUP 1	2.0	10.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	10.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	3.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	4.0	8.0
	Total	18.0	100.0

Total hours worked to date: 738.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
LB03-U0282	Excavator	8.0	0.0
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
ABC	Semi Dump Truck A	0.0	10.0
DEF	Semi Dump Truck B	0.0	10.0
GHI	Cat Excavator with Thumb	0.0	10.0
	Total	16.0	38.0

Total operating hours to date: 281.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
174

DATE
11 May 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused Non-Critical Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM completed the transfer of debris accumulated to date to the debris stockpile. No obstructions were removed. Thatcher completed installation of the SSP around area 3 by placing the lower retaining ring. No fenders were removed today. Griffin continued installation of the dewatering system in cell #3. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
Rain in the early morning hindered work.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator, 1 laborer, and 1 truck drivers from MDI, 8 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
EQ received notice that the Dive plan was disapproved and began a response. Early morning rains hindered work progress. Power, phone, and internet services were lost.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

~~No QC requirements were completed today~~

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 174

DATE 11 May 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	10.0
EQM	CONSTRUCTION INSPECTOR	1.0	10.0
Griffin Dewatering	LABORERS	2.0	8.0
Maintenance Dynamics	LABORERS	1.0	10.0
Maintenance Dynamics	TRUCK DRIVER, GROUP 1	1.0	10.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	10.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	3.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	4.0	8.0
	Total	16.0	92.0

Total hours worked to date: 830.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
LB03-U0282	Excavator	8.0	0.0
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
ABC	Semi Dump Truck A	0.0	10.0
DEF	Semi Dump Truck B	10.0	0.0
GHI	Cat Excavator with Thumb	0.0	10.0
	Total	26.0	28.0

Total operating hours to date: 309.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
175

DATE
12 May 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused Non-Critical Delay
Temperature Not Entered; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM completed construction of the decon pad and performed miscellaneous site clean up. The man hole at station 15+25 was filled with 53's and covered over. Thatcher arrived at the site but did not perform any work due to the rain. No fenders were removed today. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
Rain in the early morning hindered work.

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 7 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security

General Comments:
EQ met with Thatcher and Onyx to discuss the response to the disapproval of the Dive Plan. We hope to submit a response to USACE by 051705. Early morning rains hindered work progress. Power, phone, and internet services were intermittent. The Komatsu excavator was demobbed from the site.

Verbal Instructions given by Government:
Arthur Rundzaitis informed EQ that the Man Hole at Station 15+25 should be backfilled with 53 aggregate.

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0015-02	Manhole, Backfill

The following activity was finished today:

Activity No	Description
0015-02	Manhole, Backfill
0018-01	Construction Emissions Air Monitoring, Set up

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 175

DATE 12 May 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	3.0	0.0
	Total	11.0	40.0

Total hours worked to date: 870.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
ABC	Semi Dump Truck A	10.0	0.0
DEF	Semi Dump Truck B	10.0	0.0
GHI	Cat Excavator with Thumb	0.0	10.0
	Total	36.0	10.0

Total operating hours to date: 319.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
176

DATE
13 May 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQM continued with general clean up of the site. Rains severely impacted work progress. Thatcher and Griffin did not mob to the site due to the prospect of rain. Attached is a summary table showing the items removed to date.

Were there any Delays in Work Progress today?
Rain hindered work.

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, 1 Operator and 1 laborer from MDI, 0 personnel from Thatcher Engineering, and 3 Security Officers from Task Force Security.

General Comments:
Power, phone, and internet services were intermittent. Heavy rains severely impacted work.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany conducted a safety meeting and discussed safety issues related to the coming work.

Safety: (Inspections made, Deficiencies noted):
None

Safety: Corrective Action taken:
None.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0001-13	Demobe - Clearing
0001-14	Demobe - Bumpers/Fenders

The following activity was finished today:

Activity No	Description
0003-01	Clearing
0007-02	24" Concrete Fille Pipes Disposal
0008-02	24" Dia. Concrete Pads, Disposal
0009-02	Gate Valves, Disposal
0010-02	Water Valves, Disposal
0011-02	Valves, Disposal

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 176

DATE 13 May 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

0012-02 4"-12" Pipes, Disposal
0014-02 Hydrants, Disposal

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	0.0	0.0
Griffin Dewatering	LABORERS	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
	Total	4.0	32.0

Total hours worked to date: 912.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
ABC	Semi Dump Truck A	10.0	0.0
DEF	Semi Dump Truck B	10.0	0.0
GHI	Cat Excavator with Thumb	0.0	8.0
	Total	36.0	8.0

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
179 Page 1 of 1

DATE
16 May 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
180 Page 1 of 1

DATE
17 May 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
181

DATE
18 May 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
182

DATE
19 May 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
183

DATE
20 May 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
186

DATE
23 May 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
187

DATE
24 May 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912R6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
188 Page 1 of 1

DATE
25 May 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
189

DATE
26 May 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 190

DATE 27 May 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 902.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 194

DATE 31 May 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 55 °F, Max 76 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Griffin completed the dewatering cell for area 3. EQ held the Preparatory Phase Meeting for Obstructio Removal (air monitoring, dredging, and pipe removal).

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, Ben Letany EQM, two laborers from Maintenance Dynamics and two representatives of Griffin Dewatering.

General Comments:
Tentative approval on the Dive Plan was received. This wa a remobilization day with Griffin completing work on the dewatering cell. The preparatory phase meeting for the upcoming work was held. No work has been performed on site since 051305. This report covers 051405 to 053105.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

Preparatory inspections were held today for the following 2 features:
Obstruct Removal - Air Monitor
Obstruct Removal-Dredging

No initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 194

DATE 31 May 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EGM	SAFETY ENGINEER - ON SITE	1.0	8.0
EGM	SUPER - JOB	1.0	8.0
EGM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	2.0	8.0
Maintenance Dynamics	LABORERS	2.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	0.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
	Total	7.0	48.0

Total hours worked to date: 950.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
	Total	8.0	0.0

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
195

DATE
01 Jun 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following 4 activities were started today:

Activity No	Description
0002-04-03	Recurring Utilities/Lease, Month 3
0002-06-03	Security Service, Month 3
0004-02-02	Turbidity Curtain O&M, Month 2
0017-02-02	Decontamination System Usage, Month 2

No activities were finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 950.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 196

DATE 02 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Not Entered

QC NARRATIVES

No QC Narratives were reported today

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

No labor hours were Reported today

Total hours worked to date: 950.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 327.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
197

DATE
03 Jun 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Mn 63 °F, Max 75 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on 060105 and 060205. This report covers those days as well as 060305. On 060305 Divers installed shims on the lower ring of the coffer dam on area #3.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, and 11 Representatives from Thatcher Engineering (four of these were their subcontractor divers, Onyx).

General Comments:
Work proceeded without incident. No work has been performed on site since 053105. This report covers 060105 to 060305.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 197

DATE 03 Jun 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		5.0	8.0
Thatcher Engineering	DIVER PUMPER		4.0	8.0
Total hours worked to date:	998.0	Total	13.0	48.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	8.0
Total operating hours to date: 335.0		Total	8.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/10/5		

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 200 Page 1 of 2 DATE 06 Jun 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 66 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher began dredging operations. A cable on the crane on the crane broke about 14:30 and required replacement. EQ began ambient air monitoring.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Nick Michailides EQM, two laborers from Maintenance Dynamics, two representatives from Griffin Dewatering, and six Representatives from Thatcher Engineering.

General Comments:
A cable on the crane broke. No injuries or property damage occurred. The remaining work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 200

DATE 06 Jun 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Griffin Dewatering	LABORERS		2.0	10.0
Maintenance Dynamics	LABORERS		2.0	10.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	10.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	10.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		4.0	10.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,078.0	Total	13.0	80.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	10.0
Total operating hours to date: 345.0		Total	0.0	10.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/10/5		

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 201 Page 1 of 2 DATE 07 Jun 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused Non-Critical Delay Temperature Min 64 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed dredging operations. Divers asisted with clearing of sediment from around the pipe. Griffin began dewatering of the dredge spoil. EQ continued ambient air monitoring. EQ collected dredge samples for waste profiling.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Nick Michailides EQM, two laborers from Maintenance Dynamics, two representatives from Griffin Dewatering, and 11 Representatives from Thatcher Engineering (including four divers subcontracted from ONYX).

General Comments:
Work was discontinued about 30 minutes early due to lightening/thunder The remaining work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 201

DATE 07 Jun 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P5-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	2.0	8.0
Maintenance Dynamics	LABORERS	2.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	5.0	8.0
Thatcher Engineering	DIVER PUMPER	4.0	8.0
	Total	18.0	72.0

Total hours worked to date: 1,150.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	0.0	8.0
	Total	0.0	16.0

Total operating hours to date: 361.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/10/5		

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 202 Page 1 of 2 DATE 08 Jun 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 73 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed removal of the 8 inch pipe in area three. A segment 11 ft 6 inches was removed. The pipe on the south end (canal) was plugged). The north end was loose and was not plugged. It will be removed after the ssp coffer damis removed. DLZ suvyed the xyz coordinates of the south termination point of the pipe. Griffin continued dewatering of the dredge spoil. EQ continued ambient air monitoring.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Nick Mchailides EQM, two laborers from Maintenance Dynamics, two representatives from Griffin Dewatering, two surveyors from DLZ, and 7 Representatives from Thatcher Engineering (including four divers subcontracted from ONYX).

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 202

DATE 08 Jun 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		2.0	11.0
EQM	SAFETY ENGINEER - ON SITE		1.0	14.0
EQM	SUPER - JOB		1.0	14.0
EQM	CONSTRUCTION INSPECTOR		1.0	14.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		2.0	8.0
Maintenance Dynamics	LABORERS		2.0	14.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	14.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	14.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	14.0
Thatcher Engineering	DIVER PUMPER		4.0	14.0
Total hours worked to date:	1,281.0	Total	16.0	131.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	14.0
74167	Small Crane		8.0	0.0
Total operating hours to date: 375.0		Total	8.0	14.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/10/5		

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 203 Page 1 of 2 DATE 09 Jun 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 70 °F, Max 91 °F; 0.37 IN Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed placement of the backfill stone. The surface elevation of the in place stone was 556. This was measured relative to known points on the existing ssp wall. Griffin continued dewatering of the dredge spoil. EQ continued ambient air monitoring.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, two laborers from Maintenance Dynamics, two operators from Griffin Dewatering, and 3 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 203

DATE 09 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	4.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		2.0	8.0
Maintenance Dynamics	LABORERS		2.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,341.0	Total	10.0	60.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
Total operating hours to date: 383.0		Total	8.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/10/5		

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
204

DATE
10 Jun 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 76 °F, Max 89 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher removed the coffer damat area 3. EQ continued ambient air monitoring. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, Ed Wise EQM, one laborer fromMaintenance Dynamics, and 5 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 204

DATE 10 Jun 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0005 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EOM	SAFETY ENGINEER - ON SITE		1.0	8.0
EOM	SUPER - JOB		1.0	8.0
EOM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	2.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	8.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,391.0	Total	9.0	50.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
Total operating hours to date: 391.0		Total	8.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/13/05		6-14-05

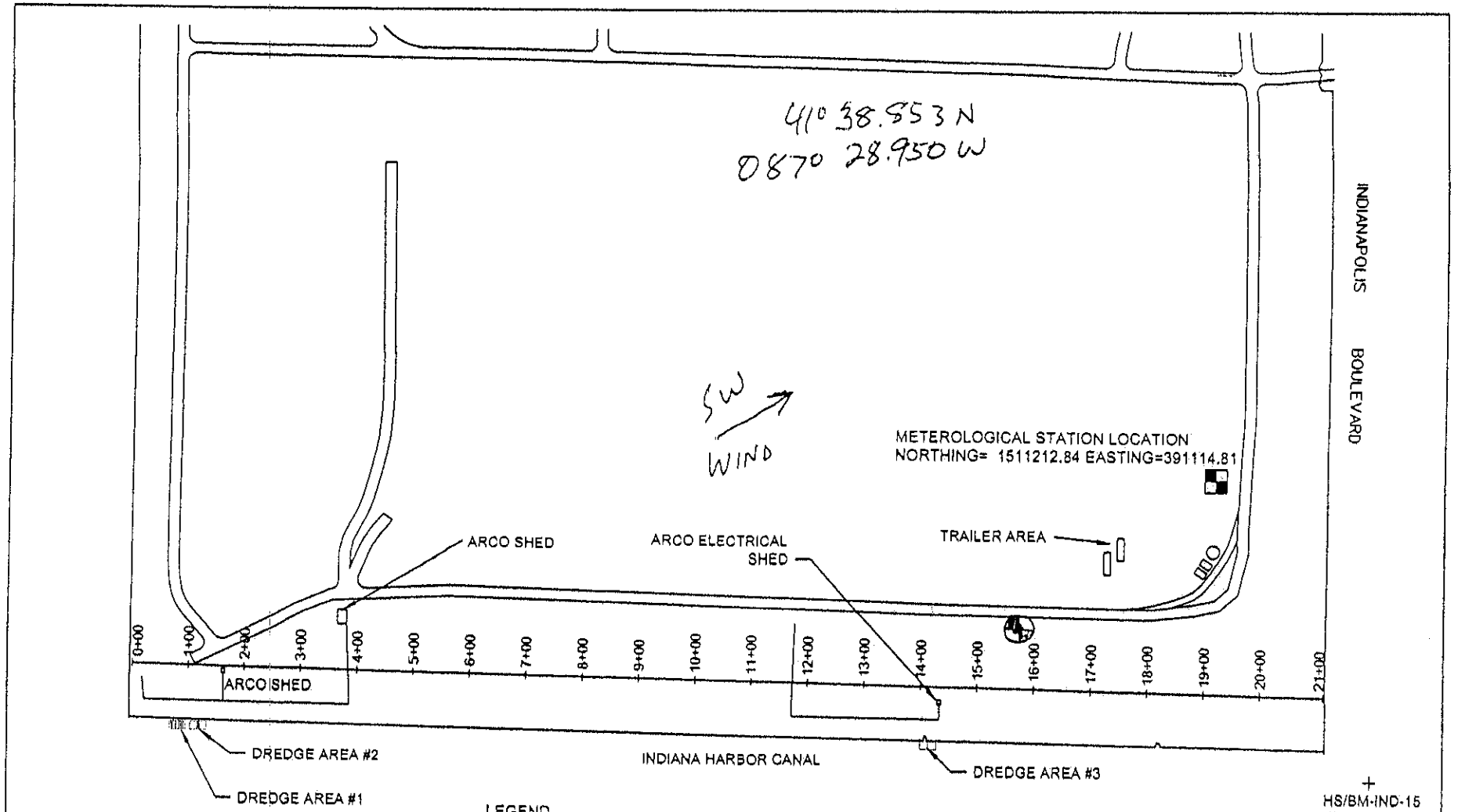
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-10-05 0917	PDR	[illegible]	Zero Calibration	"Cal OK"	Overcast, Hot, Humid SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

6-10-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING DATA SHEET

Site: 030244
PN: Indiana Harbor
Date: 06/10/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Voc061005					06:32	06:19	24	6
TO-13	Semi-Vol 061005					06:27	06:19	24	1,022.69L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: REMOVAL OF COFFER DAM
Weather conditions: OVERCAST, HOT, HUMID
Analytical lab: STL
COC Number: EQ-13110, EQ-13111

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13111**

Project No.	Project Name																			
030244	Indiana Harbor Obstruction Removal																			
Samplers/Affiliation: *(Print Name and Sign)* Ben Cetany, Ben Cetany / EOM				Lab P.O. No: 9132																
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668													
Semi-Vol 060105	6/1/05	24hr.	Filter	1,022.69L	2	X	X													

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Ship To:
Ben Cetany	6/1/05	0805	Wanda Walker	6/11/05	8:15	~~STL - Pick up on Site~~ Drop off at STL - Chicago
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	6/20/05	Jackie Donn	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

6-10-05

Enter city or US zip See weather related to ... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

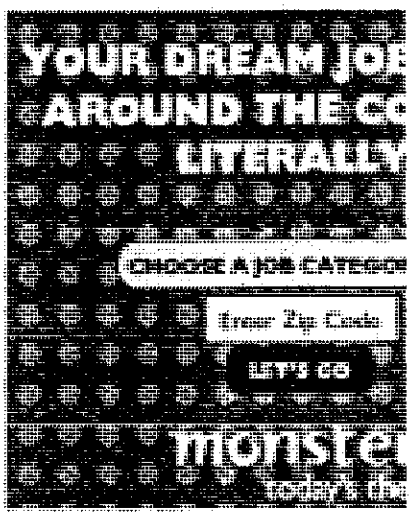
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Arlene Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Mostly Cloudy 77°F	80°F	72°F	83%	10.0 miles	29.89	Variable 7mph
Sunrise at 5:15 AM							
5:50 AM	Mostly Cloudy 75°F	78°F	72°F	89%	Unlimited	29.91 ↑	Variable 7mph
6:50 AM	Mostly Cloudy 77°F	80°F	72°F	83%	Unlimited	29.91 →	From SE 9mph
7:50 AM	Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.92 ↑	From S 9mph
8:50 AM	Cloudy 79°F	83°F	73°F	83%	10.0 miles	29.94 ↑	From SSW 12mph
9:50 AM	Mostly Cloudy 81°F	87°F	75°F	84%	7.0 miles	29.93 ↓	From S 9mph
10:50 AM	Mostly Cloudy 82°F	88°F	73°F	74%	7.0 miles	29.93 →	From S 9mph
11:50 AM	Mostly Cloudy 86°F	93°F	73°F	66%	10.0 miles	29.92 ↓	From S 12mph
12:50 PM	Mostly Cloudy 86°F	93°F	73°F	66%	10.0 miles	29.91 ↓	From S 12mph
1:50 PM	Mostly Cloudy 88°F	95°F	73°F	62%	10.0 miles	29.90 ↓	From S 9mph
2:50 PM	Mostly Cloudy 91°F	100°F	73°F	55%	10.0 miles	29.88 ↓	From S 12mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Special Offers in East Chic

3:50 PM	Partly Cloudy 91°F	98°F	72°F	52%	10.0 miles	29.86 ↓	From S 12mph
4:45 PM	Mostly Cloudy 91°F	100°F	73°F	55%	10.0 miles	29.84 ↓	From SSW 9mph
6:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	10.0 miles	29.85 ↑	From S 14mph
7:55 PM	Mostly Cloudy 86°F	89°F	68°F	55%	10.0 miles	29.87 ↑	From S 14mph
Sunset at 8:23 PM							
8:48 PM	Mostly Cloudy 82°F	86°F	68°F	62%	10.0 miles	29.88 ↑	From S 12mph
9:50 PM	Mostly Cloudy 82°F	86°F	70°F	66%	10.0 miles	29.89 ↑	From S 12mph

Avg. 83.8 Avg. 29.89 Back to previous page

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This Week's Features

Spring Lawn Care

Tips to gro
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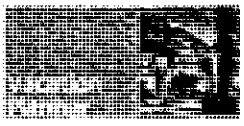
Driving Weather

Check curr
conditions

Summer Adventure



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- Combat Mold in Your Home
- Local Mosquito Activity Levels
- Storm Alerts by E-mail

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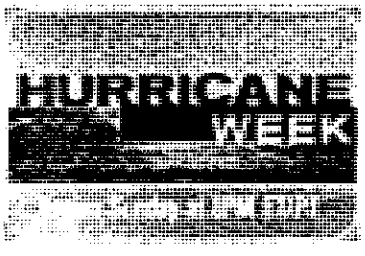


On-Air Schedule (ET)

Now | Weekend Planner

11 PM | Weekend Now

2 PM | Weekend Weather Center

Watch Hurricane Week Starting Sunday, June 5!

Tune to The Weather Channel Radio in your

pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:14:54 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.089 mg/m³
Time at maximum: 10:16:19 Jun 10
Max STEL Concentration: 0.024 mg/m³
Time at max STEL: 10:20:25 Jun 10
Overall Avg Conc: 0.065 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	10:19:54	0.066

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:03:40 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.071 mg/m³
Time at maximum: 12:04:45 Jun 10
Max STEL Concentration: 0.020 mg/m³
Time at max STEL: 12:11:10 Jun 10
Overall Avg Conc: 0.041 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	12:08:40	0.044

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:06:07 10-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.077 mg/m³
Time at maximum: 14:07:49 Jun 10
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 14:14:37 Jun 10
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	14:11:07	0.043

pDR-1000 S/N: 00000
Tag Number: 04

Number of logged points: 5
Start time and date: 16:03:39 10-Jun
Elapsed time: 00:25:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.039 mg/m³
Time at maximum: 16:05:00 Jun 10
Max STEL Concentration: 0.020 mg/m³
Time at max STEL: 16:18:39 Jun 10
Overall Avg Conc: 0.017 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Jun	16:08:39	0.027

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 207

DATE 13 Jun 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 71 °F, Max 90 °F; 0.25 IN Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher relocated the ssp materials from the coffer dam at area 3 to area 2. EQ constructed the dewatering cell for area 1 and 2. EQ continued ambient air monitoring. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and 2 laborers from Maintenance Dynamics, and 8 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 207

DATE 13 Jun 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		2.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		6.0	8.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,455.0	Total	14.0	64.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	8.0
Total operating hours to date: 407.0		Total	8.0	16.0

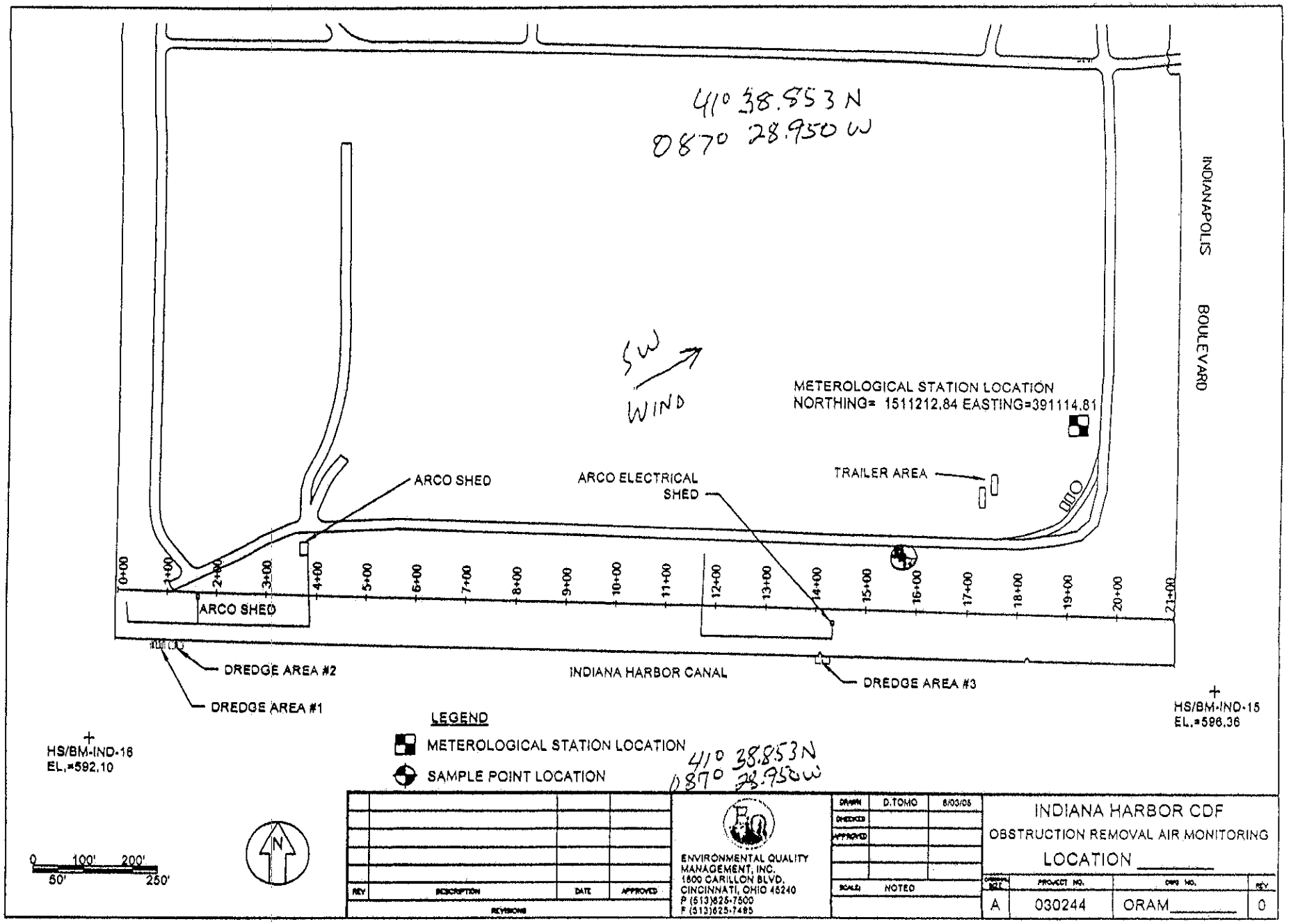
ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	6/14/5	[signature]	6-14-05

6-13-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7485

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

Site: Indiana Harbor
PN 030244
Date: 6/13/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Vex 061305					06:35	06:25	24	6
TO-13	Semi-Vol	061305				06:35	06:25	24	990.72L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Moving stuff & equip. to refill area; Sludge covered in pit
Weather conditions: Sunny, HOT, HUMID
Analytical lab: STL
COC Number: EQ-13114, EQ-13115

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-13-05 0827	PDR	[illegible]	Zero Calibration	"Cal. OK"	Sunny, Hot, Humid WSW wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Page ____ of ____

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.25 inches Rain

6-13-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Cloudy **72°F**	**72°F**	68°F	88%	7.0 miles	29.74	Variable 7mph
Sunrise at 5:15 AM							
5:50 AM	Cloudy **73°F**	**73°F**	68°F	83%	7.0 miles	29.76 ↑	Variable 7mph
6:50 AM	Haze **75°F**	**78°F**	70°F	83%	6.0 miles	29.77 ↑	Variable 7mph
7:50 AM	Haze **75°F**	**77°F**	68°F	78%	6.0 miles	29.78 ↑	Variable 7mph
8:45 AM	Partly Cloudy **79°F**	**81°F**	68°F	69%	7.0 miles	29.78 →	Variable 7mph
9:50 AM	Partly Cloudy **81°F**	**84°F**	70°F	70%	10.0 miles	29.78 →	From W 9mph
10:50 AM	Partly Cloudy **82°F**	**86°F**	68°F	62%	10.0 miles	29.76 ↓	From WNW 9mph
11:50 AM	Partly Cloudy **84°F**	**87°F**	68°F	58%	10.0 miles	29.76 →	From W 9mph
12:50 PM	Partly Cloudy **88°F**	**94°F**	72°F	58%	10.0 miles	29.74 ↓	Variable 7mph
1:50 PM	Cloudy **84°F**	**88°F**	70°F	62%	10.0 miles	29.73 ↓	Variable 7mph
2:50 PM	Mostly Cloudy **79°F**	**84°F**	75°F	89%	10.0 miles	29.73 →	From SE 9mph
3:50 PM	Partly Cloudy **81°F**	**87°F**	75°F	84%	Unlimited	29.72 ↓	From SE 12mph

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Meyer Photographic Art

4:50 PM	Partly Cloudy **84°F**	**91°F**	73°F	70%	Unlimited	29.70 ↓	From SE 8mph
5:50 PM	Partly Cloudy **88°F**	**97°F**	75°F	66%	Unlimited	29.69 ↓	From SSE 8mph
6:50 PM	Partly Cloudy **88°F**	**90°F**	66°F	49%	Unlimited	29.69 →	From SW 9mph
7:50 PM	Mostly Cloudy **84°F**	**86°F**	64°F	51%	Unlimited	29.69 →	From SSW 12mph
Sunset at 8:25 PM							
8:50 PM	Cloudy **82°F**	**85°F**	66°F	58%	Unlimited	29.69 →	Variable 5mph
9:50 PM	Cloudy **81°F**	**83°F**	68°F	65%	Unlimited	29.69 →	From SSW 12mph

Avg. 81° 29.73

Back to previous page

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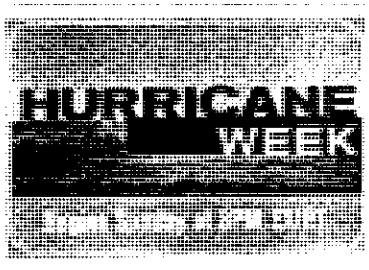

On-Air Schedule (ET)

Now | First Outlook

9 AM | Day Planner

12 PM | Weather Center

Watch Hurricane Week Starting Sunday, June 5!

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13114

Project No.	Project Name
03C 241	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Calaway / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15										
VOC 061305	6-14-05	2141	Summa Canister	6 liter	1	X										

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Ben Calaway	6-14-05	0830	[illegible]	6-14-05	1030	STL - Pick up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 6/22/05	Report To: Julie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13115

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Letang / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TC-13/8270	TC-13/1668										
Sani. Vol 061305	6-14-05	24h.	Filter	990.72 L	2	X	X										

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	6-14-05	0830	[signature]	6-14-05	830	STL - Pick Up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
[signature]	7/6/05					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	6/22/05	Jackie Doan	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

IHCDR Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:23:46 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.082 mg/m³
Time at maximum: 10:28:40 Jun 13
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 10:30:16 Jun 13
Overall Avg Conc: 0.045 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	10:28:46	0.045

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:38:12 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.202 mg/m³
Time at maximum: 12:45:07 Jun 13
Max STEL Concentration: 0.026 mg/m³
Time at max STEL: 12:46:42 Jun 13
Overall Avg Conc: 0.046 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	12:43:12	0.047

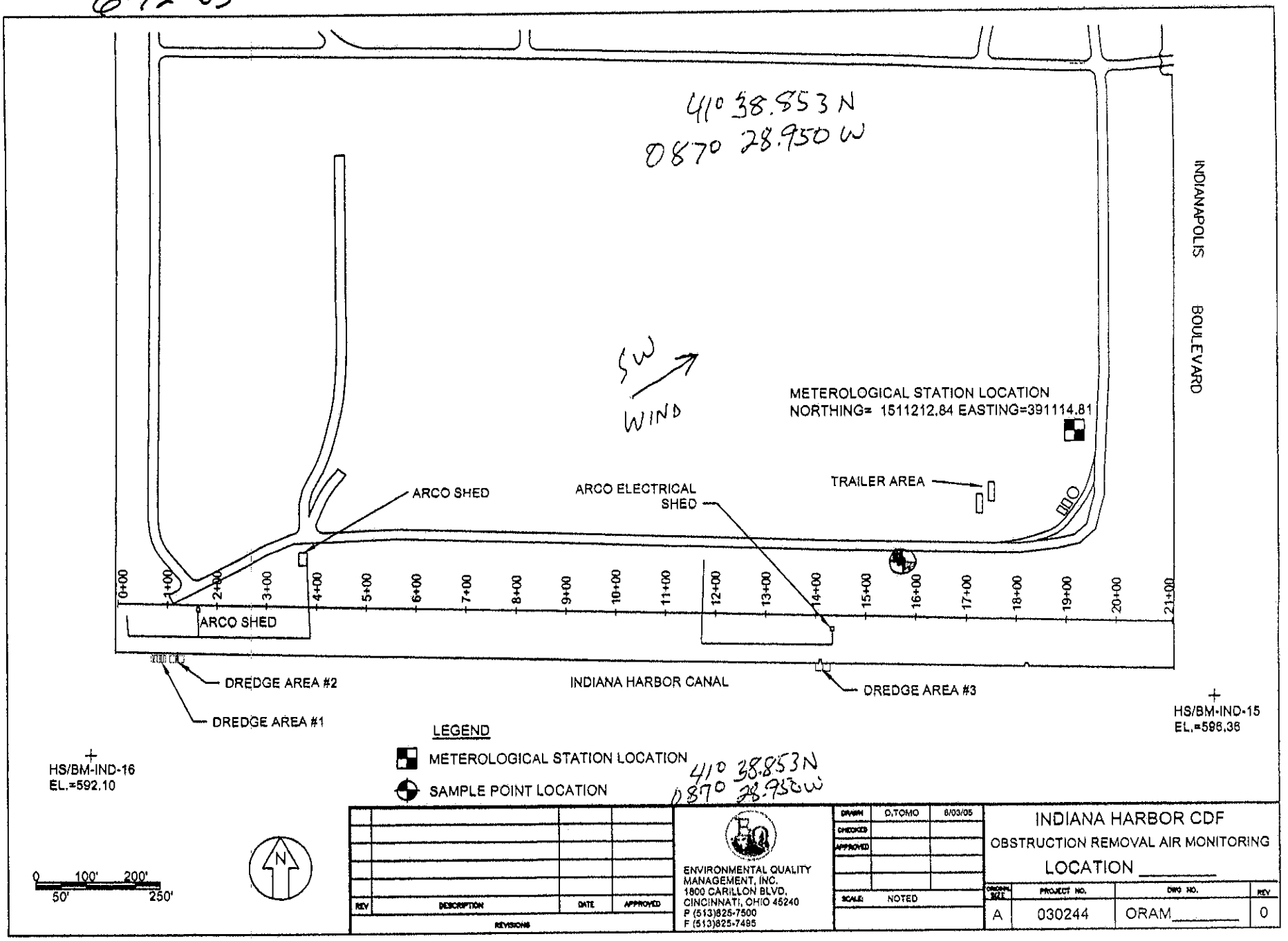
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:30:28 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.076 mg/m³
Time at maximum: 14:32:07 Jun 13
Max STEL Concentration: 0.017 mg/m³
Time at max STEL: 14:35:28 Jun 13
Overall Avg Conc: 0.052 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	14:35:28	0.052

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:39:28 13-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.076 mg/m³
Time at maximum: 16:39:43 Jun 13
Max STEL Concentration: 0.009 mg/m³
Time at max STEL: 16:44:28 Jun 13
Overall Avg Conc: 0.029 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jun	16:44:28	0.039

6-12-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING DATA SHEET

Site: 030244
PN: IN HARBOR
Date: 06/12/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ HR.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC061205					06:33	06:20	24	6
TO-13	Eq-VOC061205					06:33	06:20	24	1,032 PL
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BJ
Calculations by: BJ
Checked by:

Activities performed on site: NONE, Dredge spoil covered in pit
Weather conditions: Cloudy, 83°
Analytical lab: STL
COC Number: EQ-13112, EQ-13113

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13112

Project No.: 0302444

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15											
VOC 061105	6-12-05	24Hr.	Summa Canister	6 Liter	1	X											
VOC 061205	6-13-05	24hr.	Summa Canister	6 Liter	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-13-05	1905	[illegible]	6-13-05	9:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL. Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/21/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13113

Project No.	Project Name
030 744	Indiana Herbal Construction Project

Samplers/Affiliation: (Print Name and Sign) Ryan Lakey

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: To-13/8270	TO-13/1668
Semi-Vol OC 1105	6-12-05	24hr	Filter	1,030.75 L	2	x	x
Semi-Vol OC 1205	6-13-05	24hr	Filter	1,032.19 L	2	x	x

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-13-05	0905	[signature]	[illegible]	4:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Site - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/21/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

6-12-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

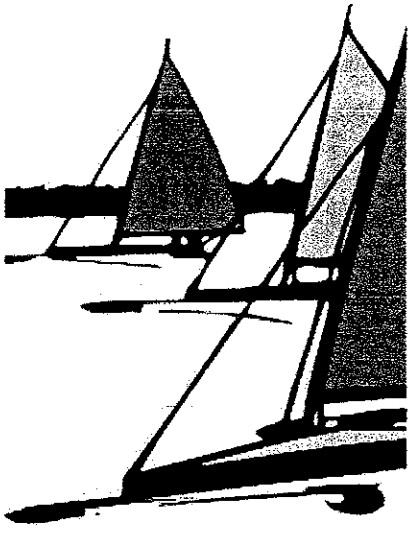
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:45 AM	Mostly Cloudy **75°F**	**78°F**	72°F	89%	10.0 miles	29.88	From S 7mph
	Sunrise at 5:15 AM						
5:50 AM	Cloudy **75°F**	**78°F**	72°F	89%	7.0 miles	29.88 →	From S 7mph
6:50 AM	Cloudy **75°F**	**78°F**	72°F	89%	7.0 miles	29.89 ↑	From S 9mph
7:50 AM	Cloudy **75°F**	**78°F**	70°F	83%	10.0 miles	29.90 ↑	From S 9mph
8:50 AM	Cloudy **75°F**	**78°F**	70°F	83%	10.0 miles	29.90 →	From SSE 12mph
9:50 AM	Cloudy **77°F**	**80°F**	70°F	78%	10.0 miles	29.91 ↑	From S 12mph
10:50 AM	Cloudy **79°F**	**83°F**	72°F	78%	10.0 miles	29.90 ↓	From SSW 9mph
11:45 AM	Cloudy **79°F**	**82°F**	70°F	74%	10.0 miles	29.89 ↓	From SW 14mph
12:50 PM	Cloudy **81°F**	**84°F**	70°F	70%	10.0 miles	29.88 ↓	From SSW 14mph
2:45 PM	Cloudy **82°F**	**85°F**	66°F	58%	10.0 miles	29.85 ↓	From SSW 9mph
3:51 PM	Cloudy **81°F**	**83°F**	68°F	65%	Unlimited	29.85 →	From S 9mph
4:50 PM	Cloudy **81°F**	**83°F**	68°F	65%	10.0 miles	29.85 →	From SSE 9mph
5:50	Cloudy	**81°F**	68°F	69%	10.0 miles	29.84 ↓	From SE

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-W
Race. http://team.abnamro.com

Sailing under one flag TEAM ABN AMRO

Special Offers in East Chica

PM	79°F						9mph
6:50 PM	Cloudy 79°F	81°F	68°F	69%	Unlimited	29.81 ↓	Variable 7mph
7:50 PM	Cloudy 77°F	79°F	68°F	74%	10.0 miles	29.81 →	From ESE 8mph
Sunset at 8:24 PM							
8:50 PM	Cloudy 75°F	77°F	68°F	78%	10.0 miles	29.80 ↓	From ESE 8mph
9:50 PM	Cloudy 73°F	73°F	68°F	83%	10.0 miles	29.79 ↓	Variable 7mph

Avg. 78° - 29.84

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We'll text the forecast to your cell in seconds!

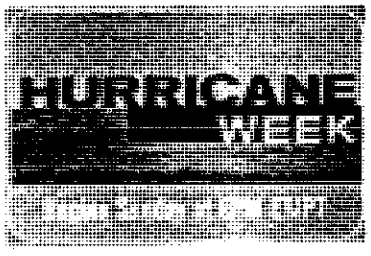
Weather for Your Drive

Find forecasts along your route
Interstate 4
Interstate 5
Interstate 8

- Check Road Conditions
- Find U.S. Scenic Drives
- Prepare Your Car for Rain
- How Safe is Your Car?

What's on The Weather Channel

Find TWC on your TV



On-Air Schedule (ET)

Now | First Outlook
9 AM | Day Planner
12 PM | Weather Center

Watch Hurricane Week Starting Sunday, June 5!

Tune to The Weather Channel Radio in your area!

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This Week's Features

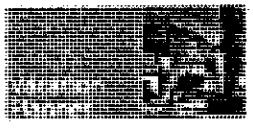
Spring Lawn Care

Tips to gro yard in spr

Driving Weather

Check curr conditions

Summer Adventure



Find perfec your sumn

Desktop Weather

FREE weat on your de

Health

Weather a

PM		79°F						9mph
6:50 PM		Cloudy 79°F	81°F	68°F	69%	Unlimited	29.81 ↓	Variable 7mph
7:50 PM		Cloudy 77°F	79°F	68°F	74%	10.0 miles	29.81 →	From ESE 8mph
Sunset at 8:24 PM								
8:50 PM		Cloudy 75°F	77°F	68°F	78%	10.0 miles	29.80 ↓	From ESE 8mph
9:50 PM		Cloudy 73°F	73°F	68°F	83%	10.0 miles	29.79 ↓	Variable 7mph

Avg. 78° - 29.81

Back to previous page

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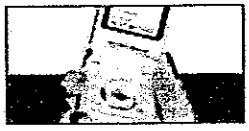
Your Local Forecast brought to you by 4CAST



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We'll text the forecast to your cell in seconds!

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Find forecasts along your route

Interstate 4
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What's on The Weather Channel

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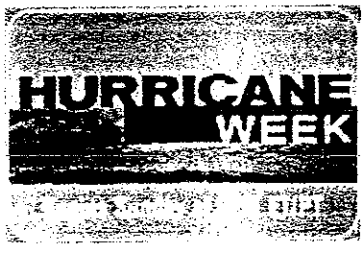

On-Air Schedule (ET)

Now	First Outlook
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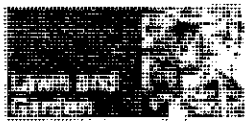
This Week's Features

Spring Lawn Care



Tips to gro yard in spr

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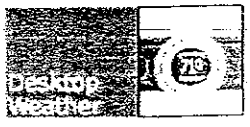


FREE weat on your de

Health

Weather a

Site: Indiana Harbor
PN 030244
Date: 06 / 11 / 05
Page: 1 of 1

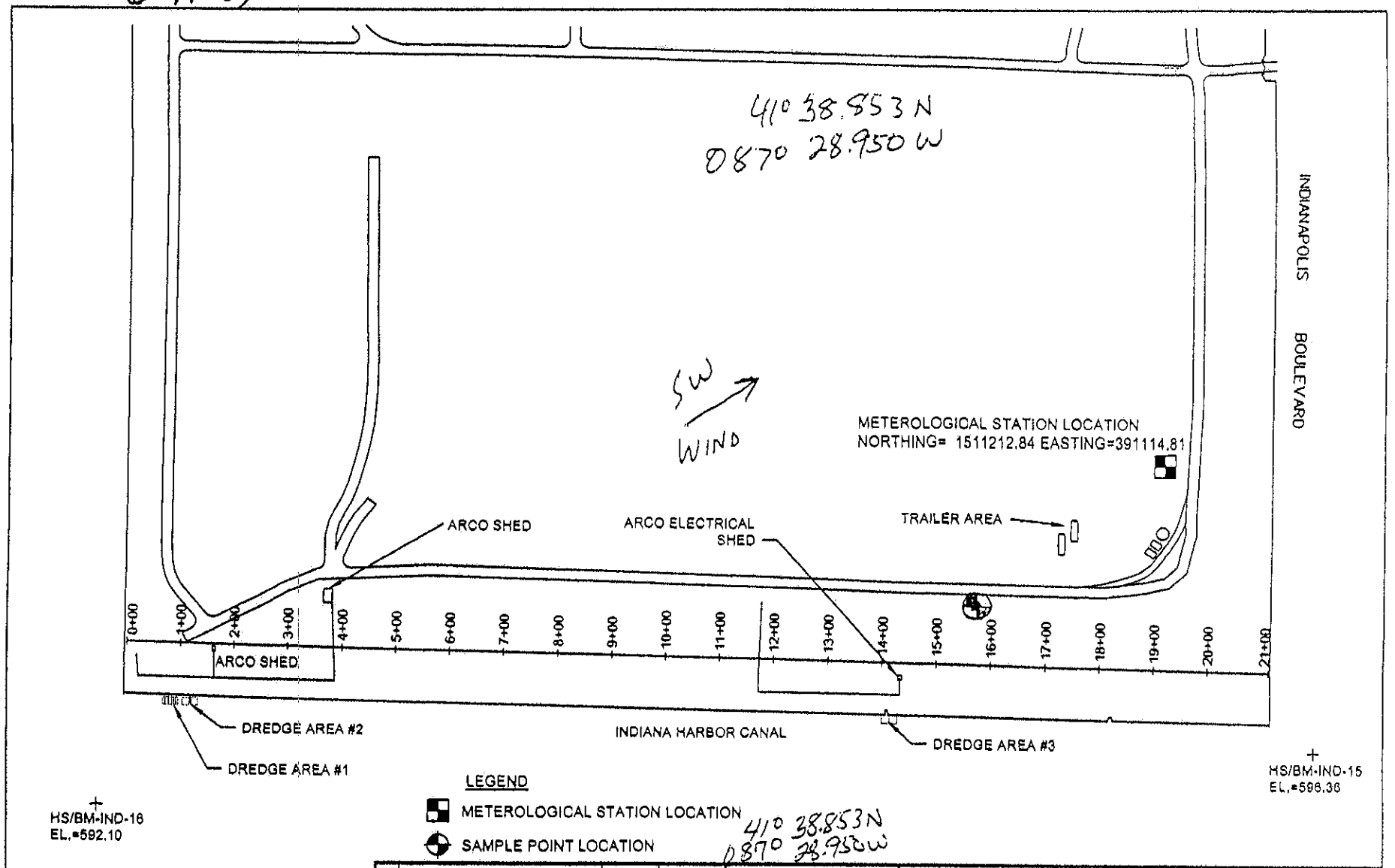
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HR.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC061105					06:35	06:21	24	6
TO-13	Semi-VOC061105					06:29	06:21	24	1,030.75
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: NONE, Dredge Spoil covered in DIT
Weather conditions: Sunny, Hot, Humid
Analytical lab: STL
COC Number: EQ-13112, EQ-13113

6-11-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7485

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE: NOTED		

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **75°F**	**78°F**	72°F	89%	5.0 miles	29.89	Variable 7mph
	Sunrise at 5:15 AM						
5:45 AM	Partly Cloudy **73°F**	**73°F**	70°F	88%	5.0 miles	29.89 →	Variable 7mph
7:50 AM	Partly Cloudy **79°F**	**83°F**	72°F	78%	10.0 miles	29.91 ↑	From SSW 7mph
8:50 AM	Partly Cloudy **81°F**	**85°F**	72°F	74%	Unlimited	29.92 ↑	From SW 7mph
9:50 AM	Partly Cloudy **82°F**	**87°F**	72°F	70%	10.0 miles	29.91 ↓	From S 9mph
10:46 AM	Mostly Cloudy **82°F**	**87°F**	72°F	70%	10.0 miles	29.91 →	From S 9mph
11:50 AM	Mostly Cloudy **84°F**	**88°F**	70°F	62%	10.0 miles	29.91	From S 14mph
12:45 PM	Mostly Cloudy **84°F**	**88°F**	70°F	62%	Unlimited	29.92 ↑	From S 16mph
1:45 PM	Mostly Cloudy **82°F**	**86°F**	70°F	66%	10.0 miles	29.89 ↓	From S 12mph
2:45 PM	Mostly Cloudy **86°F**	**90°F**	70°F	58%	10.0 miles	29.88 ↓	From S 14mph
3:50 PM	Mostly Cloudy **84°F**	**89°F**	72°F	66%	Unlimited	29.86 ↓	From S 12mph
	Mostly						

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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start

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Special Offers in East Chic

4:50 PM	Cloudy 84°F	91°F	73°F	70%	Unlimited	29.85 ↓	From SSE 9mph
5:50 PM	Mostly Cloudy 84°F	88°F	70°F	62%	Unlimited	29 86 ↑	From S 12mph
6:50 PM	Mostly Cloudy 81°F	83°F	68°F	65%	Unlimited	29 86 →	From S 9mph
7:50 PM	Mostly Cloudy 79°F	82°F	70°F	74%	Unlimited	29.86 →	From S 9mph
Sunset at 8:24 PM							
8:50 PM	Mostly Cloudy 79°F	82°F	70°F	74%	Unlimited	29 86 →	From S 9mph
9:50 PM	Mostly Cloudy 77°F	80°F	70°F	78%	Unlimited	29 86 →	From S 7mph

Avg. 81° Avg. 29.88 Back to previous page

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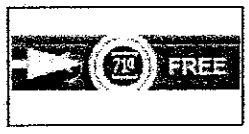

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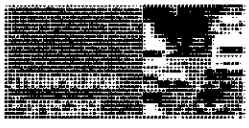
Spring Lawn Care

Tips to gro yard in spr

Driving Weather



Check curr conditions

Summer Adventure

Find perfec your sumn

Sports Schedules, Forecasts, & More

Get Local Event Forecasts
For East Chicago, IN (46312)

- (•) Special Events
- ( ) Sporting Events

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- Golf Schedules & Forecasts
- U.S. Weather Maps

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On-Air Schedule (ET)

Now	Weekend Planner
11 PM	Weekend Now
2 PM	Weekend Weather Center

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking EQ- 13133

Project No.	Project Name
030744	Indiana Harbor Construction Project

Samplers/Affiliation: (Print Name and Sign) Ben Lakey

Lab P.O. No 9132

Sample ID	Date	Time	Description/Matrix	Sample Volume / Comments	No. of Containers	TESTS: To-13/8270	TO-13/1668
Semi-Vol OC 1105	6-12-05	24hr	Filter	1,030.75 L	2	X	X
Semi-Vol 06 12 05	6-13-05	24hr	Filter	1,032.19 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-13-05	0905	[signature]	6-13-05	9:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Site - Pick up on Site

Airbill Number

Reporting/QA Requirements	Turn Around Time (EXACT DUE DATE)	Report To	Chain of Custody Seal Numbers
	6/21/05	Jackie Dean	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13112

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Pat Lotany, Ben Q. Pla / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15
VOC 061105	6-12-05	24hr.	Summa Canister	6 liter	1	X
VOC 061205	6-13-05	24hr.	Summa Canister	6 liter	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-13-05	0905	[signature]	6-13-05	9:05
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/21/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
208

DATE
14 Jun 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912R6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 68 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher relocated the turbidity curtain to area 2. EQMD performed site clean up. EQ continued ambient air monitoring. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and 2 laborers from Maintenance Dynamics, and 8 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 208

DATE 14 Jun 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
BGM	SAFETY ENGINEER - ON SITE		1.0	8.0
BGM	SUPER - JOB		1.0	8.0
BGM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		6.0	48.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,567.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		0.0	8.0
Total operating hours to date: 423.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/16/5		6-15-05

IHCDF Obstruction Removal
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:23:59 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.032 mg/m³
Time at maximum: 10:24:16 Jun 14
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 10:28:59 Jun 14
Overall Avg Conc: 0.012 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	10:28:59	0.012

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:32:46 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.017 mg/m³
Time at maximum: 12:37:15 Jun 14
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 12:35:16 Jun 14
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	12:37:46	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:42:02 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.035 mg/m³
Time at maximum: 14:42:03 Jun 14
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 14:47:32 Jun 14
Overall Avg Conc: 0.007 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	14:47:02	0.008

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:40:01 14-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.211 mg/m³
Time at maximum: 16:44:00 Jun 14
Max STEL Concentration: 0.012 mg/m³
Time at max STEL: 16:48:31 Jun 14
Overall Avg Conc: 0.020 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jun	16:45:01	0.024

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ-** 13117

Project No.	Project Name
6362411	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* [illegible] / TGM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TESTS: TO-13/8268
Sm. Vol 02-1405	6-15-05	24hr	Filter	98.1 L	2	x	x

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	6-15-05	0700	[illegible]	6/16	9:10
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/23/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13116**

Project No.	Project Name
03,02 411	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lofaro / Ecom

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: EPA TO-15
Vcc 061405	6-15-05	24hr.	Summa Canister	6 liters	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6/15/05	0910	[signature]	6/15/05	9:17
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

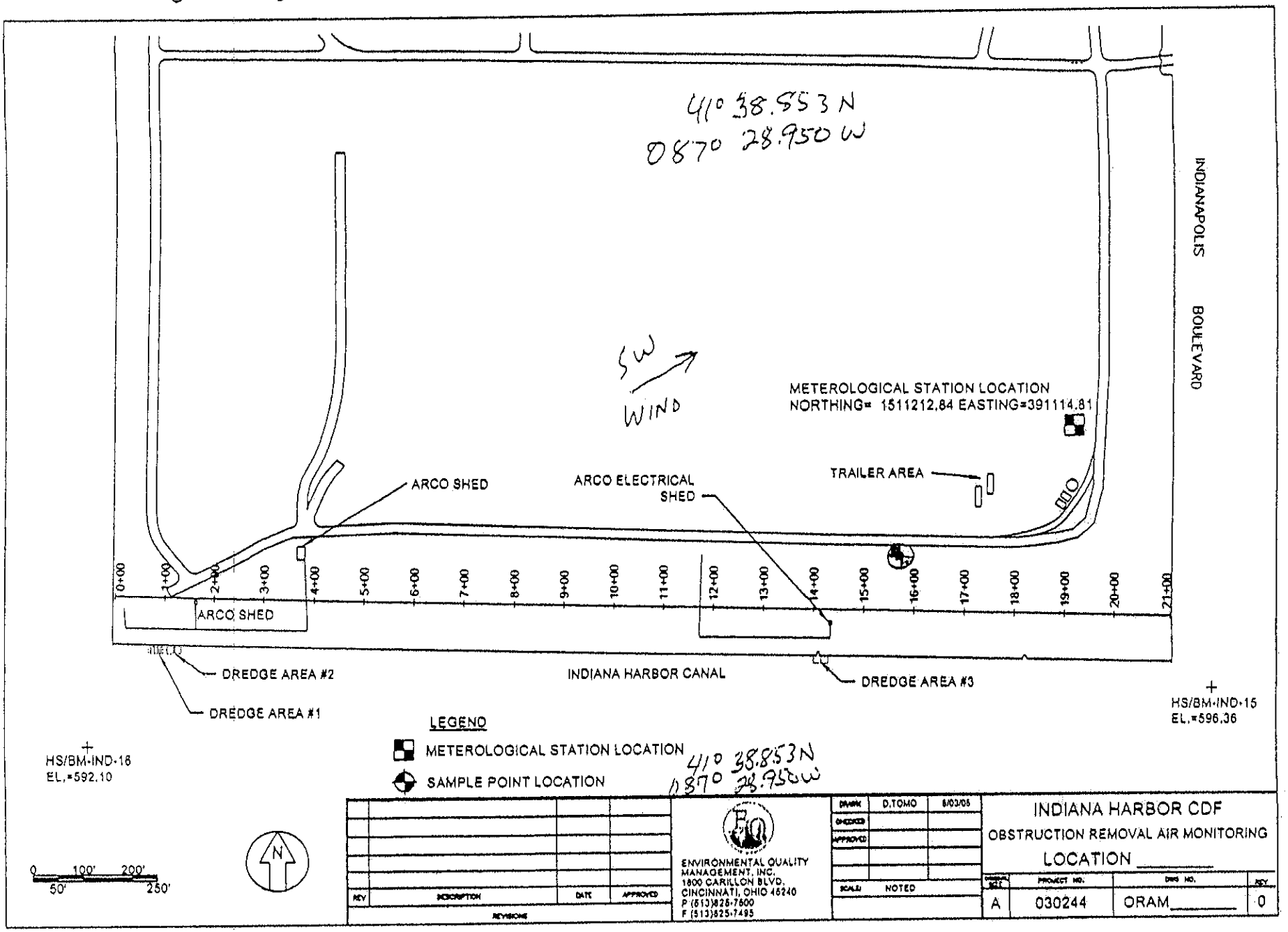
Turn Around Time (*EXACT DUE DATE*): 6/23/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

6-14-05



REV	DESCRIPTION	DATE	APPROVED

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DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-14-05 0816	PDR	[illegible]	Zero Calibration	"Cal Ok"	Sunny, Warm SW wind 10-20 mph

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site: IN HARBOR CDF
PN 030244
Date: 06/14/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min ~~HR~~	Air Volume, liters
TO-15	Wk061405					06:35	06:20	24	6
TO-13	Swi Vol	061405				06:35	06:20	24	956.1
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

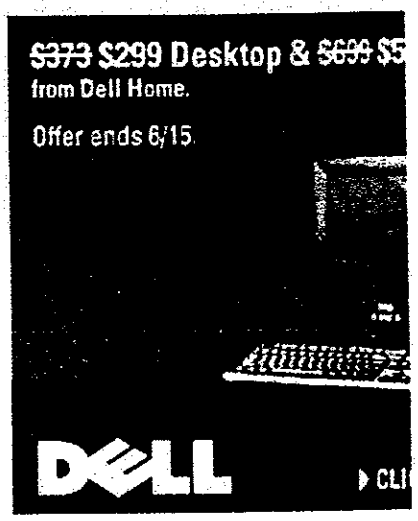
Activities performed on site: Move TURB. Curtain, Drive Pile
Weather conditions: Sunny, warm, SW wind
Analytical lab: STL COC Number: EQ-, EQ-

0 - Rain

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **68°F**	**68°F**	64°F	88%	10.0 miles	29.66	From SSW 12mph
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **68°F**	**68°F**	64°F	88%	10.0 miles	29.65 ↓	From S 9mph
6:50 AM	Partly Cloudy **70°F**	**70°F**	66°F	88%	Unlimited	29.65 →	From S 9mph
7:50 AM	Sunny **73°F**	**73°F**	66°F	78%	Unlimited	29.65 →	From S 14mph
8:55 AM	Partly Cloudy **75°F**	**77°F**	68°F	78%	10.0 miles	29.64 ↓	From S 14mph
9:50 AM	Partly Cloudy **77°F**	**79°F**	68°F	74%	Unlimited	29.62 ↓	From SSW 14mph
10:50 AM	Mostly Cloudy **79°F**	**81°F**	66°F	65%	Unlimited	29.62 →	From SSW 14mph
11:50 AM	Mostly Cloudy **81°F**	**82°F**	64°F	58%	Unlimited	29.63 ↑	From WSW 17mph
12:50 PM	Mostly Cloudy **81°F**	**83°F**	68°F	65%	Unlimited	29.63 →	From WSW 12mph
1:50 PM	Mostly Cloudy **79°F**	79°F	61°F	54%	Unlimited	29.62 ↓	From WSW 12mph
2:50 PM	Cloudy **79°F**	79°F	61°F	54%	Unlimited	29.63 ↑	From WSW 14mph
3:50	Mostly Cloudy	78°F	61°F	57%	Unlimited	29.64 ↑	From WSW



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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PM		77°F						14mph
4:50 PM		Mostly Cloudy 75°F	76°F	61°F	61%	Unlimited	29.64 →	From WSW 17mph
6:00 PM		Mostly Cloudy 75°F	76°F	63°F	65%	Unlimited	29.64 →	From WSW 17mph
6:50 PM		Mostly Cloudy 73°F	73°F	61°F	65%	Unlimited	29.66 ↑	From W 14mph
7:50 PM		Mostly Cloudy 72°F	72°F	61°F	69%	Unlimited	29.66 →	From WSW 14mph
Sunset at 8:25 PM								
8:50 PM		Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	29.67 ↑	From WSW 12mph
9:50 PM		Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	29.67 →	From WSW 14mph

Avg. 79° 29.64

Back to previous page

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 209 Page 1 of 2 DATE 15 Jun 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 61 °F, Max 75 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

Thatcher began installation of the ssp wall for the coffer damat area 2. EQMD performed site clean up and continued with the construction of the dewatering cell for areas 1 and 2. EQ continued ambient air monitoring. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and 2 laborers from Maintenance Dynamics, and 9 representatives from Thatcher Engineering.

General Comments:

Work proceeded without incident.

Verbal Instructions given by Government:

Ed Wise and Artur Rundzaitis inspected a modified plug for the 13 inch pipes. We found the design lacking and suggested modifications to Thatcher. Thatcher was to rework the plug and bring it back on 061605.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 209

DATE 15 Jun 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F5-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EDM	SAFETY ENGINEER - ON SITE	1.0	10.0
EDM	SUPER - JOB	1.0	9.0
EDM	CONSTRUCTION INSPECTOR	1.0	11.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	11.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	22.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	6.0	66.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	15.0	153.0

Total hours worked to date: 1,720.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	11.0
74167	Small Crane	8.0	0.0
	Total	8.0	11.0

Total operating hours to date: 434.0

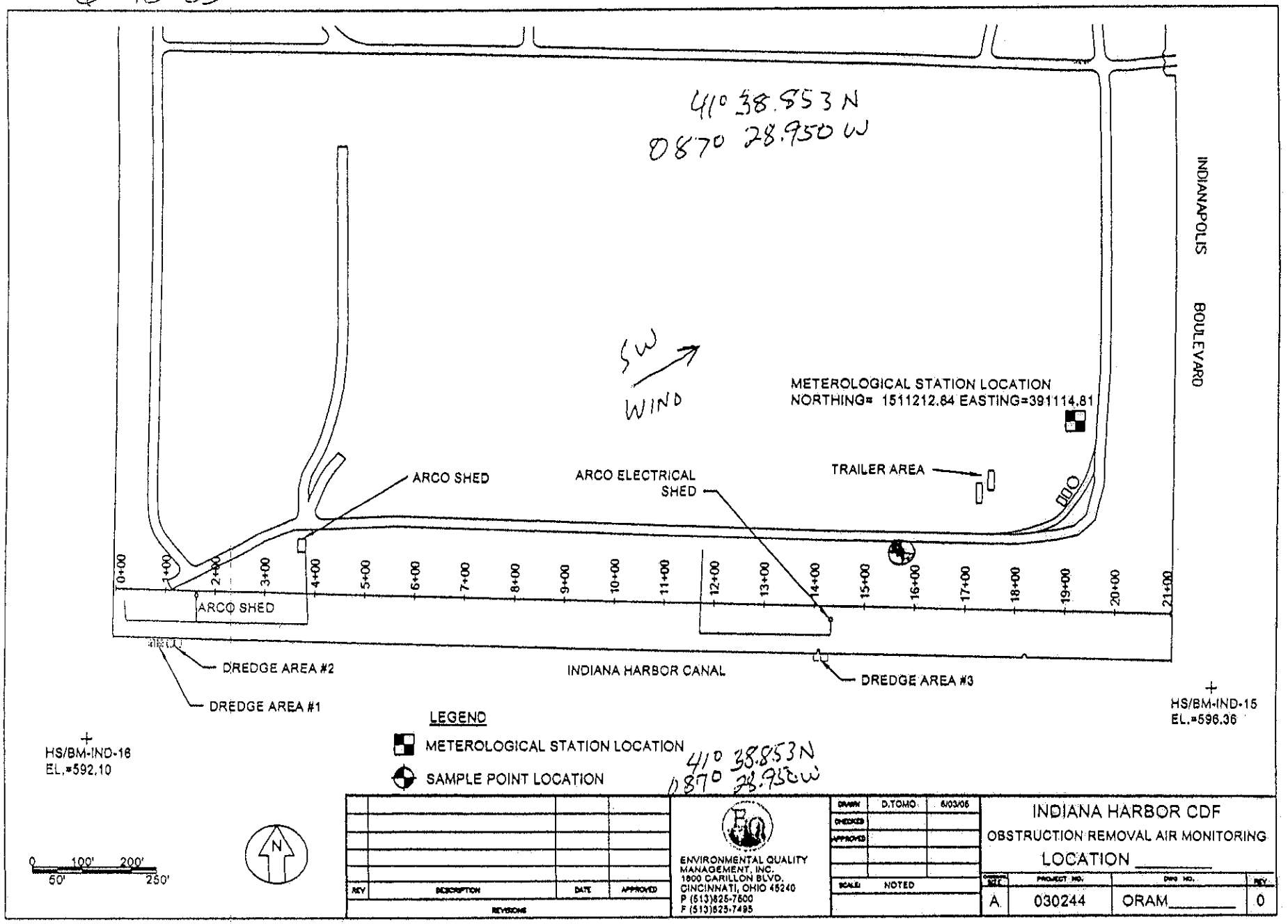
ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	6/16/5	[signature]	6-16-05

6-15-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

REV	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-15-05 0917	PDR	[illegible]	Zero Calibration	"Cal OK"	Cloudy. 70° SW wind 10-20 mph

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site: Indiana Harbor
PN 030244
Date: 06 / 15 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR.	Air Volume, liters
TO-15	Ute 061505					06:30	06:20	24	6
TO-13	Semi-Vol 061505					06:30	06:10	23.67	1,018.85
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BDJ
Calculations by: BDJ
Checked by:

Activities performed on site: Setting steel for coffer dam
Weather conditions: Cloudy, 70°, SW wind
Analytical lab: STL
COC Number: EQ-13118, EQ-13119

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0 Rain

6-15-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

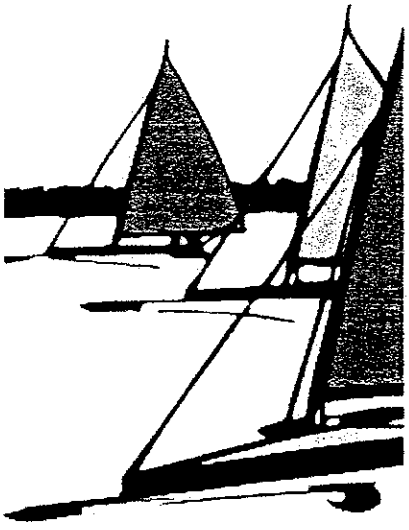
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:50 AM	Mostly Cloudy **70°F**	**70°F**	64°F	83%	10.0 miles	29.63	From WSW 9mph
	Sunrise at 5:15 AM						
5:50 AM	Mostly Cloudy **70°F**	**70°F**	64°F	83%	Unlimited	29.65 ↑	From WSW 7mph
6:50 AM	Mostly Cloudy **70°F**	**70°F**	64°F	83%	Unlimited	29.66 ↑	From WSW 8mph
7:50 AM	Mostly Cloudy **70°F**	**70°F**	64°F	83%	Unlimited	29.67 ↑	From W 9mph
8:50 AM	Mostly Cloudy **70°F**	**70°F**	63°F	78%	Unlimited	29.68 ↑	From W 9mph
9:55 AM	Cloudy **70°F**	**70°F**	61°F	73%	Unlimited	29.68	From W 12mph
10:50 AM	Cloudy **70°F**	**70°F**	61°F	73%	Unlimited	29.69 ↑	From W 12mph
11:50 AM	Cloudy **75°F**	**76°F**	64°F	69%	Unlimited	29.69 →	From W 12mph
12:50 PM	Cloudy **75°F**	**76°F**	61°F	61%	Unlimited	29.70 ↑	From W 12mph
1:55 PM	Mostly Cloudy **75°F**	76°F	61°F	61%	Unlimited	29.71 ↑	From NNW 12mph
2:50 PM	Mostly Cloudy **70°F**	70°F	59°F	68%	Unlimited	29.75 ↑	From NNW 12mph
3:50 PM	Cloudy **70°F**	70°F	59°F	65%	Unlimited	29.77 ↑	From NNW 13mph

THE RACE TO MACKIN
STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round the W
Race http://team abnamro.com

TEAM ABN AMRO

Special Offers in East Chica

4:50 PM	Cloudy 70°F	70°F	59°F	68%	Unlimited	29.78 ↑	From NNW 12mph
5:55 PM	Cloudy 68°F	68°F	57°F	68%	Unlimited	29.79 ↑	From NNW 12mph
6:48 PM	Cloudy 66°F	66°F	57°F	73%	10.0 miles	29.81 ↑	From N 14mph
7:22 PM	Cloudy 61°F	61°F	57°F	88%	10.0 miles	29.84 ↑	From NNE 14mph
7:55 PM	Light Drizzle 61°F	61°F	57°F	88%	4.0 miles	29.86 ↑	From N 14mph
Sunset at 8:26 PM							
8:45 PM	Cloudy 61°F	61°F	57°F	88%	10.0 miles	29.85 ↓	From N 12mph

Avg. 66° 29.68

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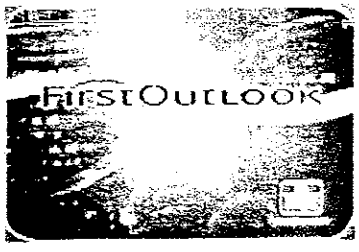

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Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13119

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15											
IHC 061505	6/16/05	24hr.	Summa Canister	6 liter	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6/16/05	0537	[signature]	6/16/05	837
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up On Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/24/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13118

Project No.: 03C 2141

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Geni-Lab 061505	6-15-05	23:67	Filter	1,018.85 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6/15/05	2037	[illegible]	6/16/05	837
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site.

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/24/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

IHCDF Obstruction Removal Particulate Monitoring

pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:32:40 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.054 mg/m³
Time at maximum: 10:38:18 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 10:41:10 Jun 15
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	10:37:40	0.003

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:31:58 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.034 mg/m³
Time at maximum: 12:32:44 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 12:36:58 Jun 15
Overall Avg Conc: 0.008 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	15-Jun	12:36:58	0.01

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:36:23 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.103 mg/m³
Time at maximum: 14:43:26 Jun 15
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 14:42:23 Jun 15
Overall Avg Conc: 0.011 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	15-Jun	14:41:23	0.01

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 16:31:07 15-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.027 mg/m³
Time at maximum: 16:33:38 Jun 15
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 16:35:37 Jun 15
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jun	16:36:07	0.014

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**75°F**	**61°F**	**N/A in**
Averages	**80°F**	**61°F**	--
Records	**99°F** (1987)	**47°F** (1980)	--

Sunrise: **5:14 AM**

Sunset: **8:25 PM**

Waxing Half, First Quarter

On The Spot Weather

Choose Location

Yesterday's Reported Conditions

47°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

June GO

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 210 Page 1 of 2 DATE 16 Jun 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 57 °F, Max 75 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed installation of the ssp wall for the coffer dam at area 2. EQMD performed site clean up and continued with the construction of the dewatering cell for areas 1 and 2. EQ continued ambient air monitoring. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and 2 laborers from Maintenance Dynamics, and 9 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
Ed Wise and Artur Rundzaitis inspected the redesigned plug and found it to be adequate.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 210

DATE 16 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	10.0
EQM	CONSTRUCTION INSPECTOR		1.0	10.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	10.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	20.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		6.0	60.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	1,864.0	Total	15.0	144.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	10.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		0.0	8.0
Total operating hours to date: 452.0		Total	8.0	18.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/20/05	William Bennett	6-20-05

Past Weather as reported at

On The Spot W

hourly reports

June 16's Reported Conditions

	High	Low	Precip
Actuals	**75°F**	**57°F**	**N/A in**
Averages	**81°F**	**61°F**	--
Records	**96°F** (1994)	**46°F** (1980)	--

Sunrise: **5:14 AM**

Sunset: **8:25 PM**

Waxing Gibbous

46°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

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IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:50:42 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.125 mg/m³
Time at maximum: 10:52:37 Jun 16
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 10:55:42 Jun 16
Overall Avg Conc: 0.016 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	10:55:42	0.018

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 13:36:20 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.021 mg/m³
Time at maximum: 13:37:36 Jun 16
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 13:37:50 Jun 16
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	13:41:20	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 15:19:14 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.027 mg/m³
Time at maximum: 15:21:05 Jun 16
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 15:21:44 Jun 16
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	15:24:14	0.009

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 17:43:13 16-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.052 mg/m³
Time at maximum: 17:47:18 Jun 16
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 17:47:43 Jun 16
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jun	17:48:13	0.007

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13121

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lodung / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Sediment 061105	6/17/05	2325hr.	Filter	994.9L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Ben Lodung	6/17/05	0975		6/17	9:25
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/27/05

Report To: Jackie DOAN

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13120**

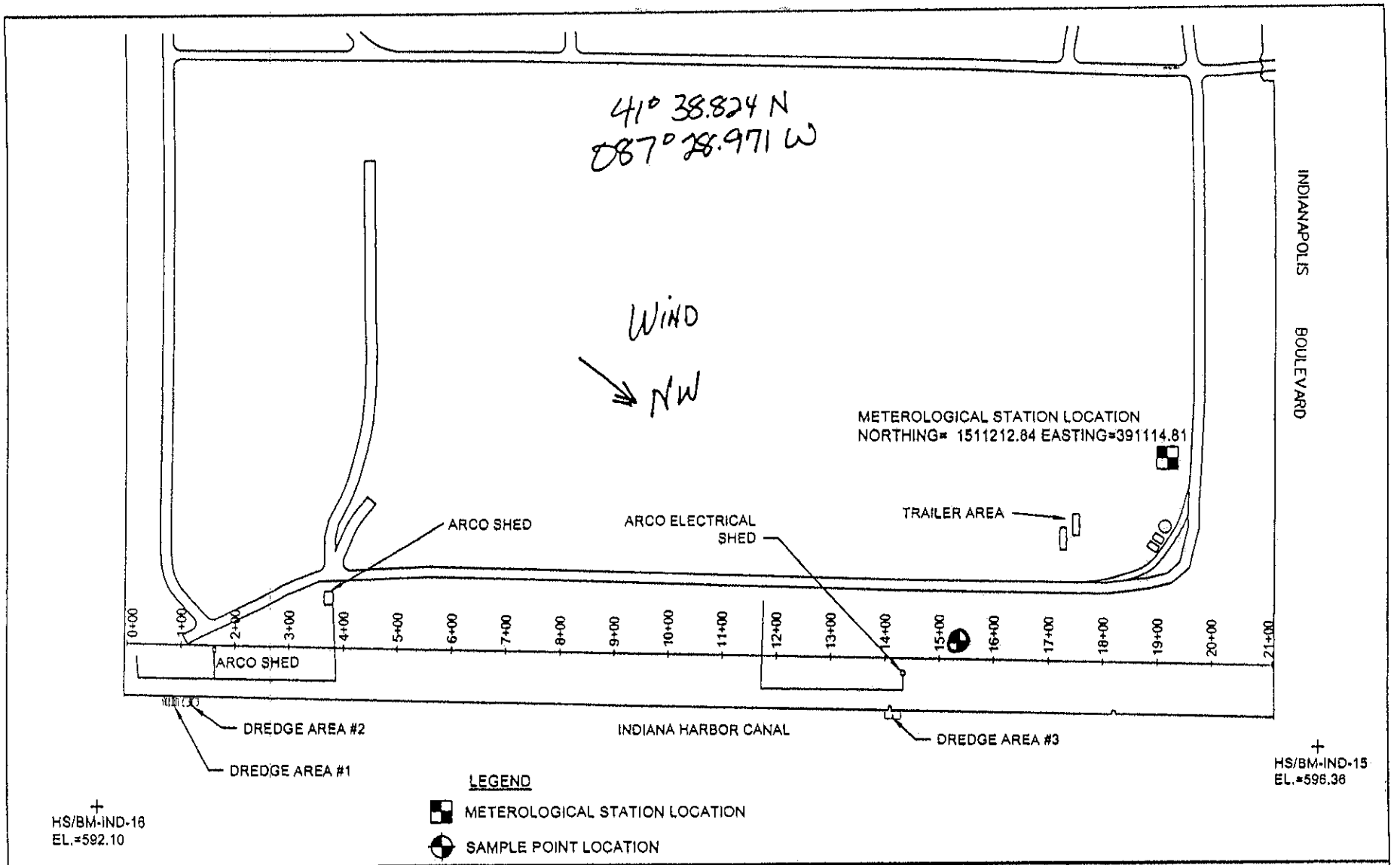
Project No.	Project Name		
030244	IN Harbor Obstruction Removal		
Samplers/Affiliation: *(Print Name and Sign)*		Lab P.O. No:	
[illegible] / [illegible] / EQM		9132	

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 061605	6-17-05	23:54	Summa Canister	6 Liters	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Ship To:
[illegible]	6-17-05	1992	[illegible]	6/17	9:25	STL - Pick up on Site
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (***EXACT DUE DATE***):	Report To:	Chain of Custody Seal Numbers
	6/27/05	JACKIE DOAN	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

Site: IN HARBOR
PN 030244
Date: 06/16/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HRS	Air Volume, liters
TO-15	Vol 061605					06:37	06:10	23.5	6
TO-13	Sair Vol 061605					06:37	06:10	23.5	994.9L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BJS
Calculations by: BJS
Checked by:

Activities performed on site: INSTALL COFFER DAM. DRIDGE SPOIL COVERED IN P.T
Weather conditions: SUNNY HIGH 80° NW → NE WINDS
Analytical lab: STL
COC Number: CQ-13120, CQ-13121

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

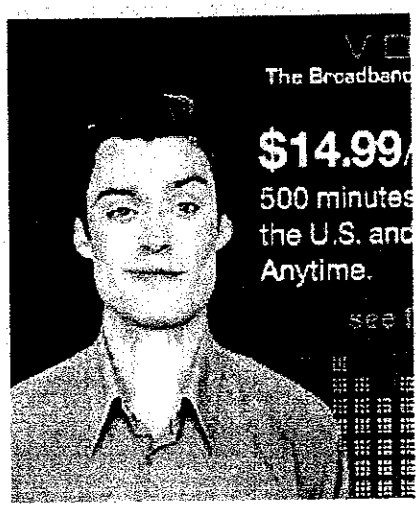
DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-16-05 0909	PDR	[signature]	Zero Calibration	"Cal. OK"	Sunny, WNW wind 10-20 MPH, ≈ 70°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Clear **57 °F**	**57 °F**	55 °F	94%	Unlimited	29.89	From W 12 mph
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **61 °F**	**61 °F**	55 °F	82%	Unlimited	29.89 →	From WNW 9 mph
6:50 AM	Partly Cloudy **63 °F**	**63 °F**	54 °F	72%	Unlimited	29.89 →	From NW 9 mph
7:50 AM	Sunny **66 °F**	**66 °F**	50 °F	56%	Unlimited	29.92 ↑	From NNW 12 mph
8:50 AM	Sunny **68 °F**	**68 °F**	50 °F	52%	Unlimited	29.93 ↑	From NNW 12 mph
9:50 AM	Sunny **70 °F**	**70 °F**	52 °F	53%	Unlimited	29.92 ↓	From N 12 mph
10:50 AM	Sunny **70 °F**	**70 °F**	52 °F	53%	Unlimited	29.93 ↑	From N 12 mph
11:50 AM	Partly Cloudy **72 °F**	**72 °F**	50 °F	46%	Unlimited	29.92 ↓	From N 12 mph
12:50 PM	Partly Cloudy **73 °F**	**73 °F**	48 °F	41%	Unlimited	29.91 ↓	From NNW 7 mph
1:50 PM	Partly Cloudy **75 °F**	**74 °F**	48 °F	38%	Unlimited	29.90 ↓	From NNW 9 mph
2:50 PM	Partly Cloudy **75 °F**	**74 °F**	48 °F	38%	Unlimited	29.88 ↓	From NNE 9 mph
3:50 PM	Partly Cloudy **75 °F**	**74 °F**	46 °F	36%	Unlimited	29.86 ↓	From NE 9 mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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4:50 PM	Partly Cloudy 75 °F	74 °F	46 °F	36%	Unlimited	29.86 →	From NE 9 mph
5:45 PM	Partly Cloudy 75 °F	74 °F	46 °F	36%	Unlimited	29.85 ↓	From NE 9 mph
6:50 PM	Partly Cloudy 73 °F	73 °F	46 °F	38%	Unlimited	29.85 →	From NE 9 mph
7:50 PM	Partly Cloudy 70 °F	70 °F	45 °F	40%	Unlimited	29.85 →	From NE 9 mph
Sunset at 8:26 PM							
8:46 PM	Partly Cloudy 63 °F	63 °F	52 °F	68%	Unlimited	29.85 →	Variable 6 mph
9:50 PM	Partly Cloudy 57 °F	57 °F	54 °F	88%	Unlimited	29.85 →	calm

Avg-69° - 29.89

Back to previous page

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 211 Page 1 of 2 DATE 17 Jun 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC	WEATHER Weather Caused No Delay Temperature Mn 61 °F, Max 70 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher began dredging of the coffer dam within area 2. Excavation proceeded to the depth that the lower ring was to be set. Several debris items were removed, including a pole, steel rods, etc. The dredge spoil nearly filled the dewatering cell. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and 2 laborers from Maintenance Dynamics, and 8 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 211

DATE 17 Jun 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	12.0
EQM	SUPER - JOB		1.0	12.0
EQM	CONSTRUCTION INSPECTOR		1.0	12.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	12.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	24.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		6.0	72.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	2,032.0	Total	15.0	168.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	12.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		0.0	8.0
Total operating hours to date: 472.0		Total	8.0	20.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/20/5		6-20-05

Past Weather as reported at

hourly reports

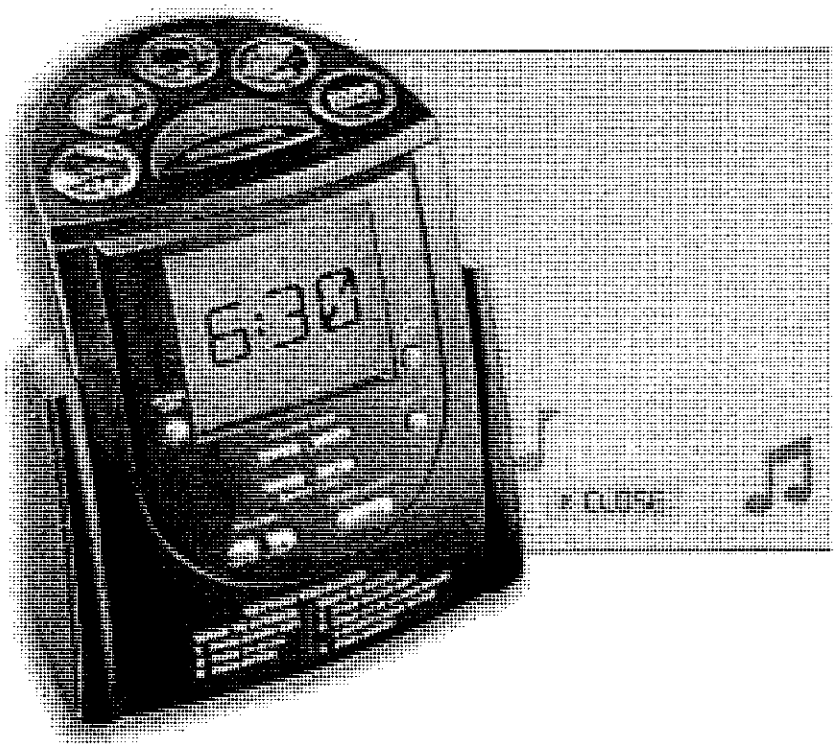
	High	Low	Precip
Actuals	**70°F**	**61°F**	**N/A in**
Averages	**81°F**	**61°F**	--
Records	**94°F** (1962)	**45°F** (1980)	--

6/17

Sunrise: **5:14 AM**

Sunset: **8:26 PM**

Waxing Gibbous



Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

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Actual High Temperatures

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:59:22 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.049 mg/m³
Time at maximum: 10:01:42 Jun 17
Max STEL Concentration: 0.014 mg/m³
Time at max STEL: 10:06:22 Jun 17
Overall Avg Conc: 0.030 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	10:04:22	0.031

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:56 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.015 mg/m³
Time at maximum: 11:26:17 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:25:56 Jun 17
Overall Avg Conc: 0 000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	11:30:56	0.001

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:19:04 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.024 mg/m³
Time at maximum: 13:19:31 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:19:04 Jun 17
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	13:24:04	0.002

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:27:30 17-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.019 mg/m³
Time at maximum: 15:30:11 Jun 17
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:27:30 Jun 17
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	17-Jun	15:32:30	0.003

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ-** 13123

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Letary / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: TO-13/8270	TO-13/8270
Semi-Vol 060705	6-18-05	21hr	Filter	1,050.6 L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-18-05	1805	[signature]	6/18/05	1805
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: Drop At STL Valpo For Shipment

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 6/27/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13122**

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Letamy / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 061705	6-18-05	24hr.	Summa Canister	6 Liter	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6-18-05	0805	[signature]	6/18/05	0805
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - DROP at VALPO.

Airbill Number:

Reporting/QA Requirements:

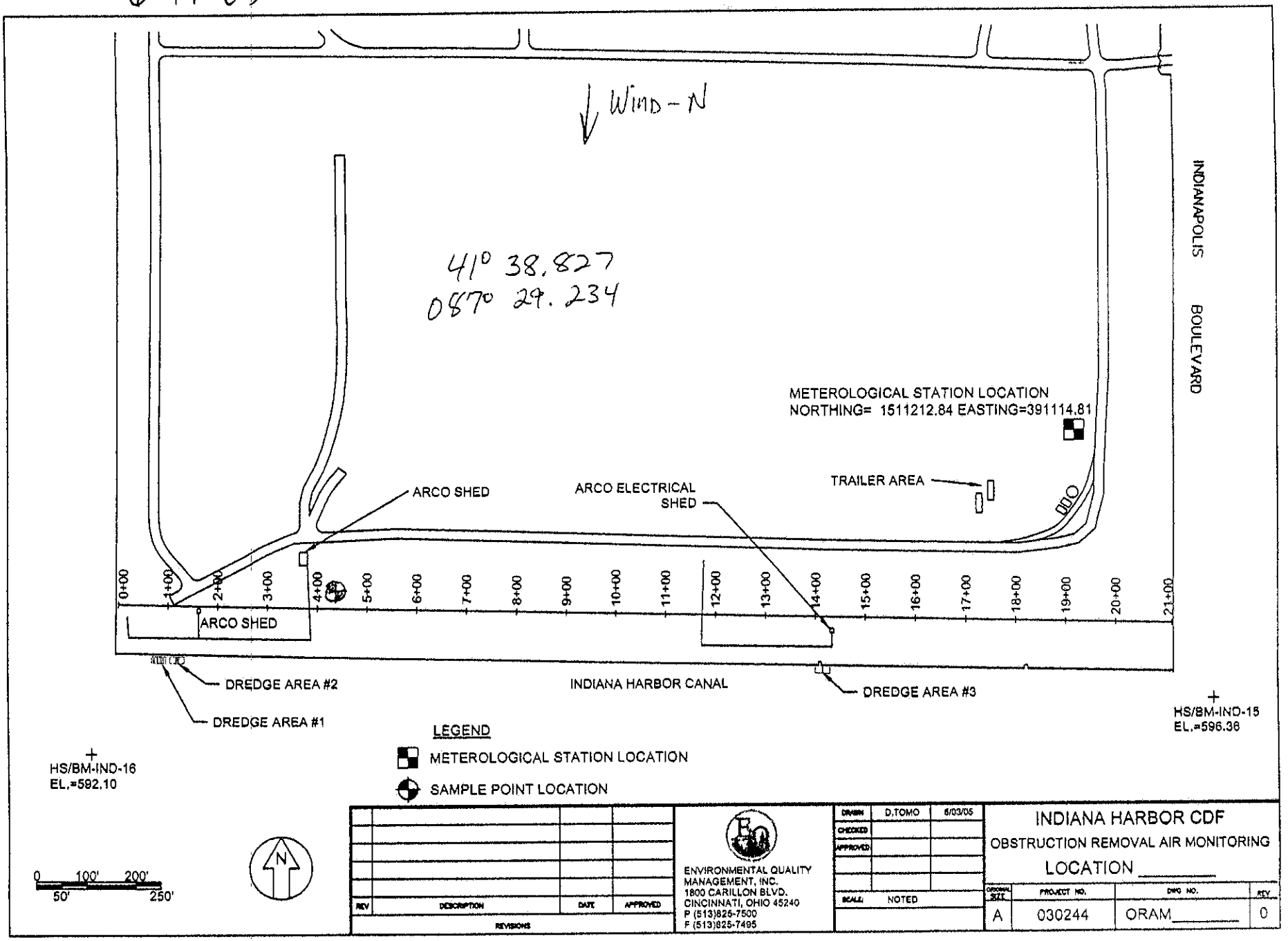
Turn Around Time (***EXACT DUE DATE***): 6/27/05

Report To: Jackie DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

6-17-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
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CINCINNATI, OHIO 45240
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DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING DATA SHEET

Site: IN HARBOR
PN 030244
Date: 06 / 17 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ HR	Air Volume, liters
TO-15	Vac 061705					06:30	06:10	24	6
TO-13	Sui-16/061705					06:30	06:20	24	1,050.6L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: DREDGING ; FINISH COFFER DAM
Weather conditions: SUNNY 65-75° NIGHT WIND
Analytical lab: STL
COC Number: EO-13122, EO-13123

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-17-05 0912	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, 270° N-NW WIND 10-20 MPH

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Partly Cloudy **61°F**	**61°F**	52°F	72%	Unlimited	29.86	From NNE 17mph
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **61°F**	**61°F**	52°F	72%	Unlimited	29.87 ↑	From N 14mph
6:50 AM	Partly Cloudy **63°F**	**63°F**	54°F	72%	Unlimited	29.89 ↑	From N 14mph
7:50 AM	Partly Cloudy **64°F**	**64°F**	54°F	68%	Unlimited	29.90 ↑	From N 12mph
8:50 AM	Partly Cloudy **66°F**	**66°F**	54°F	64%	Unlimited	29.91 ↑	From N 12mph
9:50 AM	Partly Cloudy **70°F**	**70°F**	54°F	56%	Unlimited	29.92 ↑	From NNW 12mph
10:50 AM	Mostly Cloudy **68°F**	**68°F**	55°F	64%	Unlimited	29.93 ↑	From N 14mph
11:50 AM	Mostly Cloudy **68°F**	**68°F**	57°F	68%	Unlimited	29.93 →	From NNE 14mph
12:50 PM	Partly Cloudy **66°F**	**66°F**	55°F	68%	Unlimited	29.92 ↓	From NNE 14mph
1:50 PM	Mostly Cloudy **64°F**	**64°F**	55°F	73%	Unlimited	29.94 ↑	From NNE 14mph
2:45 PM	Partly Cloudy **66°F**	**66°F**	54°F	64%	Unlimited	29.93 ↓	From N 12mph
	Mostly						

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Galleria Studios LLC

3:45 PM	Cloudy 66°F	66°F	54°F	64%	Unlimited	29.93 →	From NNE 14mph
5:50 PM	Mostly Cloudy 63°F	63°F	52°F	68%	Unlimited	29.93 →	From N 12mph
6:52 PM	Mostly Cloudy 63°F	63°F	52°F	68%	Unlimited	29.94 ↑	From N 14mph
7:50 PM	Partly Cloudy 61°F	61°F	52°F	72%	Unlimited	29.94 →	From N 14mph
Sunset at 8:26 PM							
8:55 PM	Partly Cloudy 61°F	61°F	52°F	72%	10.0 miles	29.94 →	From NNW 12mph
9:55 PM	Partly Cloudy 61°F	61°F	52°F	72%	10.0 miles	29.95 ↑	From NNW 12mph

Avg. 64° — 29.92

Back to previous page

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 212 Page 1 of 2 DATE 18 Jun 2005 - Saturday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 70 °F, Max 57 °F, No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed dredging of the coffer dam within area 2. The lower retaining ring was installed. This was very tight on the north and south walls. No analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ed Wise EQM, three security guards from Task Force, one operator from Maintenance Dynamics, and 4 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ed Wise held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 212

DATE 18 Jun 2005 - Saturday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	6.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	6.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	6.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	12.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	6.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	2,068.0	Total	6.0	36.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		2.0	6.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		8.0	0.0
Total operating hours to date: 478.0		Total	18.0	6.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/20/5		6-20-05

Past Weather as reported at

Gary

June 18 hourly reports

	High	Low	Precip
Actuals	**70°F**	**57°F**	**N/A in**
Averages	**81°F**	**62°F**	--
Records	**94°F** (1984)	**48°F** (1950)	--

Sunrise: **5:15 AM**

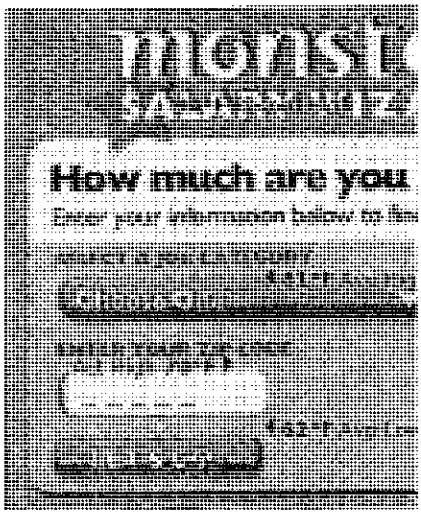
Sunset: **8:26 PM**

Waxing Gibbous

On The Spot Weather

Choose Location

June 18's Reported Conditions



48°F Record Low

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

June GO!

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IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 07:06:48 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 07:06:48 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 07:06:48 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	07:11:48	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 09:15:25 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:15:25 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:15:25 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	09:20:25	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 11:15:46 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:15:46 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:15:46 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jun	11:20:46	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 13:33:21 18-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:33:21 Jun 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:33:21 Jun 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	18-Jun	13:38:21	0

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13124

Project No.	Project Name
030244	Indiana Harbor Construction Remedial

Samplers/Affiliation: (Print Name and Sign) Ben Lodny / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 061805	6-20-05	24hr.	Summa Canister	6 Liters	1	x
VOC 061905	6-20-05	24hr.	Summa Canister	6 Liters	1	x

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-20-05	0845	[signature]	6/20	8:45
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/28/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13125

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Semi-VOI 061805	6-20-05	24hr.	Filter	1,072.2L	2	X	X
Semi-Vol 061905	6-20-05	24hr	Filter	1,054.4L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-20-05	0815	[illegible]	6/20	845
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6/28/05

Report To: Tarkie Hoan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

Site: Indiana Harbor CDF
PN 030244
Date: 6 / 18 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	Vac 061805					06:15	06:05	24	6L
TO-13	Sam.Vol 061605					06:30	06:20	24	1,070.2L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: Installed Bottom Sampler, Dredge Spoil
Weather conditions: Cloudy, NW wind, Partly Cloudy
Analytical lab: STL
COC Number: EQ-13124, EQ-13125

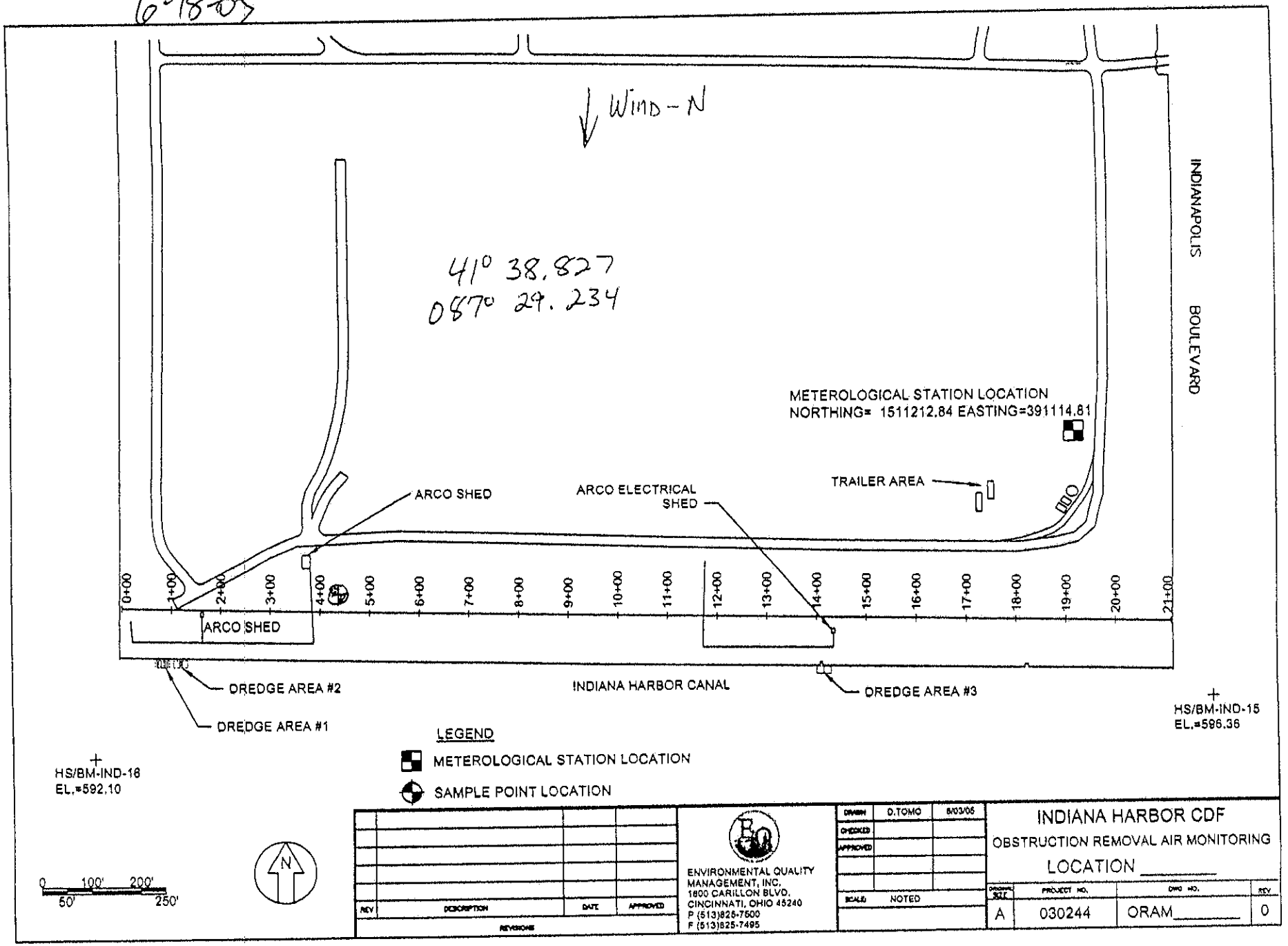
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Irvinna Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6/18/05 0605	PDR	Sam Camino	Zero Calibration	"Cal OK"	Sunny, NW wind 65°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

6-18-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
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CINCINNATI, OHIO 45240
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DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

6/16/2005	23	NE 9		20		Few Clouds	Unl	75	46	36	29.85
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/17/2005	0	NE 9		20		Few Clouds	Unl	73	46	38	29.85
6/17/2005	1	NE 9		15		Few Clouds	Unl	70	45	40	29.85
6/17/2005	2	N 6		15		Few Clouds	Unl	63	52	68	29.85
6/17/2005	3	N 0		15		Scattered Clouds	Unl	57	54	88	29.85
6/17/2005	10	NNE 17		20		Few Clouds	Unl	61	52	72	29.86
6/17/2005	11	N 14		20		Few Clouds	Unl	61	52	72	29.87
6/17/2005	12	N 14		20		Few Clouds	Unl	63	54	72	29.89
6/17/2005	13	N 12		20		Few Clouds	Unl	64	54	68	29.9
6/17/2005	14	N 12	21	20		Scattered Clouds	Unl	66	54	64	29.91
6/17/2005	15	NNW 12	21	20		Scattered Clouds	Unl	70	54	56	29.92
6/17/2005	16	N 14	23	20		Broken Clouds	7000	68	55	64	29.93
6/17/2005	17	NNE 14	25	20		Broken Clouds	7000	68	57	68	29.93
6/17/2005	18	NNE 14	23	20		Scattered Clouds	Unl	66	55	68	29.92
6/17/2005	19	NNE 14	23	20		Broken Clouds	5000	64	55	73	29.94
6/17/2005	20	N 12	23	15		Scattered Clouds	Unl	66	54	64	29.93
6/17/2005	21	NNE 14		15		Broken Clouds	9000	66	54	64	29.93
6/17/2005	23	N 12	23	12		Broken Clouds	5000	63	52	68	29.93
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/18/2005	0	N 14		12		Broken Clouds	5000	63	52	68	29.94
6/18/2005	1	N 14		12		Scattered Clouds	Unl	61	52	72	29.94
6/18/2005	2	NNW 12		10		Few Clouds	Unl	61	52	72	29.94
6/18/2005	3	NNW 12		10		Few Clouds	Unl	61	52	72	29.95
6/18/2005	10	N 0		15		Few Clouds	Unl	57	55	94	29.98
6/18/2005	11	N 0		15		Scattered Clouds	Unl	57	55	94	30
6/18/2005	12	N 0		15		Scattered Clouds	Unl	61	57	88	30.01
6/18/2005	13	N 12		15		Scattered Clouds	Unl	64	57	77	30.03
6/18/2005	14	N 12		15		Scattered Clouds	Unl	64	57	77	30.04
6/18/2005	15	N 12		15		Scattered Clouds	Unl	66	59	78	30.06
6/18/2005	16	N 14		12		Scattered Clouds	Unl	66	59	78	30.06
6/18/2005	17	NNE 14		12		Scattered Clouds	Unl	68	59	73	30.07
6/18/2005	18	NNE 9		12		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	19	NNE 12		12		Scattered Clouds	Unl	70	57	64	30.06
6/18/2005	20	NNE 14		15		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	21	N 14		15		Scattered Clouds	Unl	68	59	73	30.06
6/18/2005	22	NNE 12		15		Scattered Clouds	Unl	68	57	68	30.06
6/18/2005	23	NNE 12		15		Scattered Clouds	Unl	66	59	78	30.06
Date	**HR**	**WIND**	**GST**	**VIS**	**WX**	**SKY**	**CEL**	**TMP**	**DPT**	**RH**	**PRS**
6/19/2005	0	NNE 9		15		Scattered Clouds	Unl	64	57	77	30.07
6/19/2005	1	NNE 9		15		Scattered Clouds	Unl	63	55	77	30.09
6/19/2005	2	NNE 9		15		Scattered Clouds	Unl	61	57	88	30.09
6/19/2005	3	NNE 9		15		Few Clouds	Unl	61	57	88	30.11
6/19/2005	10	N 0		15		Few Clouds	Unl	52	50	94	30.12
6/19/2005	11	N 0		15		Few Clouds	Unl	54	52	94	30.14
6/19/2005	12	N 0		15		Few Clouds	Unl	57	57	100	30.16
6/19/2005	13	N 0		12		Few Clouds	Unl	66	59	78	30.17
6/19/2005	14	N 0		10		Few Clouds	Unl	70	59	68	30.19
6/19/2005	15	N 5		10		Scattered Clouds	Unl	72	59	64	30.19
6/19/2005	16	N 9		10		Scattered Clouds	Unl	73	63	69	30.2
6/19/2005	17	N 7		10		Scattered Clouds	Unl	75	63	65	30.19
6/19/2005	18	N 9		10		Few Clouds	Unl	75	59	57	30.2
6/19/2005	19	N 9		12		Few Clouds	Unl	77	59	54	30.19
6/19/2005	20	NE 12		15		Few Clouds	Unl	77	57	50	30.17

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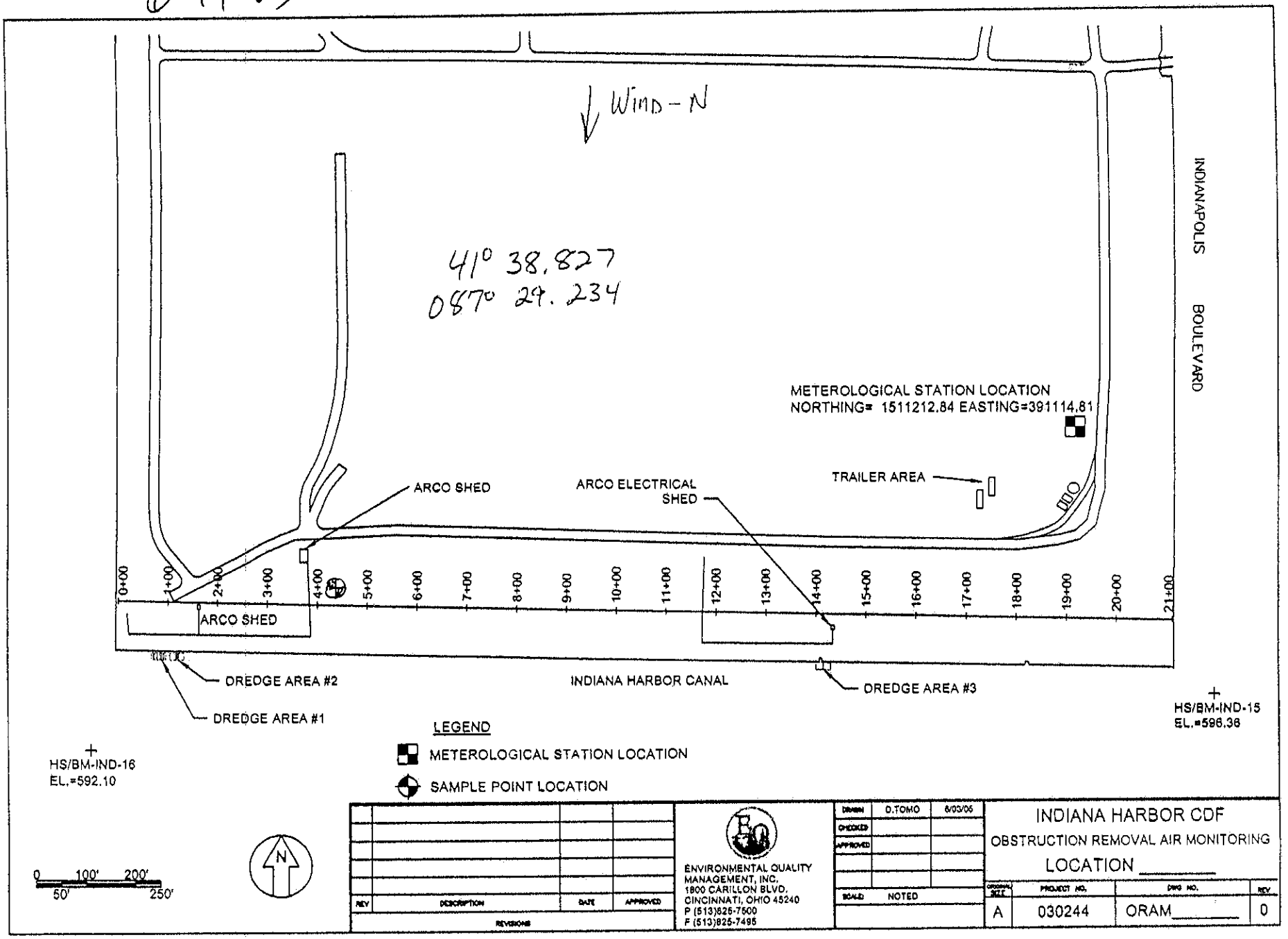
Site:	Indiana Harbor-CDF
PN	030244
Date:	6 / 19 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Vol	061905				06:18	06:15	24	6 L
TO-13						06:18	06:15	24	1,054.4 L
	Semi-Vol	061905				:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
Entries by: BDS	Calculations by: BDS					Checked by:			

Activities performed on site: None, Dredge Spoil in Pit
Weather conditions: Sunny, North wind
Analytical lab: STL COC Number: EQ-13124, EQ-13125

6-19-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
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CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/06
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

6-19-05

Enter city or US zip See weather related to ... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

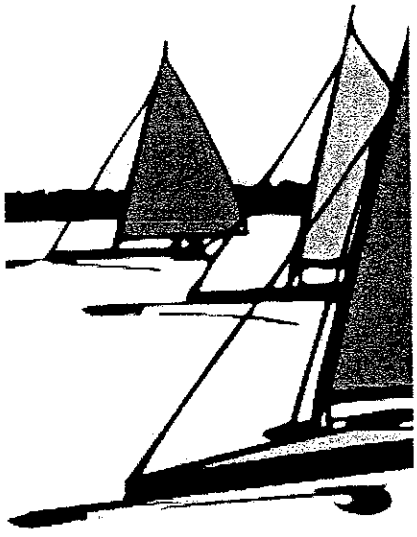
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **52°F**	**52°F**	50°F	94%	Unlimited	30.12	calm
	Sunrise at 5:15 AM						
5:50 AM	Partly Cloudy **54°F**	**54°F**	52°F	94%	Unlimited	30.14 ↑	calm
6:45 AM	Partly Cloudy **57°F**	**57°F**	57°F	100%	Unlimited	30.16 ↑	calm
7:55 AM	Partly Cloudy **66°F**	**66°F**	59°F	78%	Unlimited	30.17 ↑	calm
8:50 AM	Partly Cloudy **70°F**	**70°F**	59°F	68%	10.0 miles	30.19 ↑	calm
9:50 AM	Partly Cloudy **72°F**	**72°F**	59°F	64%	10.0 miles	30.19 →	Variable 5mph
10:50 AM	Partly Cloudy **73°F**	**73°F**	63°F	69%	10.0 miles	30.20 ↑	From N 9mph
11:45 AM	Partly Cloudy **75°F**	**76°F**	63°F	65%	10.0 miles	30.19 ↓	Variable 7mph
12:50 PM	Partly Cloudy **75°F**	**76°F**	59°F	57%	10.0 miles	30.20 ↑	From N 9mph
1:50 PM	Partly Cloudy **77°F**	**77°F**	59°F	54%	Unlimited	30.19 ↓	From N 9mph
2:50 PM	Partly Cloudy **77°F**	**77°F**	57°F	50%	Unlimited	30.17 ↓	From NE 12mph
	Partly						

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-
Race http://team.abnamro.com

Sailing under the flag TEAM ABN AMRO

Special Offers in East Chica

3:50 PM	Cloudy **77°F**	**77°F**	57°F	50%	Unlimited	30.16 ↓	From NE 12mph
5:45 PM	Partly Cloudy **75°F**	**75°F**	55°F	50%	Unlimited	30.15 ↓	From NE 14mph
6:49 PM	Sunny **73°F**	**73°F**	55°F	53%	Unlimited	30.16 ↑	From NE 12mph
7:50 PM	Sunny **70°F**	**70°F**	55°F	60%	Unlimited	30.16 →	From ENE 14mph
Sunset at 8:27 PM							
8:50 PM	Clear **68°F**	**68°F**	57°F	68%	Unlimited	30.16 →	From ENE 14mph
9:45 PM	Clear **63°F**	**63°F**	57°F	82%	Unlimited	30.17 ↑	From ENE 12mph

Avg. 69° 30.17

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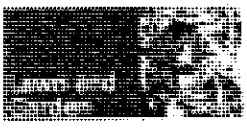
This Week's Features

Spring Lawn Care



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Weather a

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Interstate 5
Interstate 8

- Check Road Conditions
- Find U.S. Scenic Drives
- Prepare Your Car for Rain
- How Safe is Your Car?

What's on The Weather Channel

Find TWC on your TV

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Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

Tune to The Weather Channel Radio in your area!

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 214 Page 1 of 2 DATE 20 Jun 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 55 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher/Onyx completed dinstallation of the wedges on the lower ring of the coffer dam within area 2. EQ received 11 roll off boxes and loaded out all of the material from dewatering cell 3, and some of the material from cell 1/2. Griffin began dewatering of cell 1/2. Partial analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and two laborers from Maintenance Dynamics, two representatives of Griffin Dewatering, 5 divers from Onyx/Thatcher, and 2 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 214

DATE 20 Jun 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EOM	SAFETY ENGINEER - ON SITE		1.0	10.0
EOM	SUPER - JOB		1.0	10.0
EOM	CONSTRUCTION INSPECTOR		1.0	10.0
Griffin Dewatering	LABORERS		2.0	20.0
Griffin Dewatering	OPERATING ENGINEER		2.0	20.0
Maintenance Dynamics	LABORERS		2.0	20.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	10.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		5.0	40.0
Total hours worked to date:	2,224.0	Total	17.0	156.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 494.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/21/5		7-21-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:10:55 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 7.124 mg/m³
Time at maximum: 09:15:08 Jun 20
Max STEL Concentration: 0.072 mg/m³
Time at max STEL: 09:15:25 Jun 20
Overall Avg Conc: 0.251 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	09:15:55	0.265

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:16:13 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.042 mg/m³
Time at maximum: 11:20:32 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:16:13 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	11:21:13	0.004

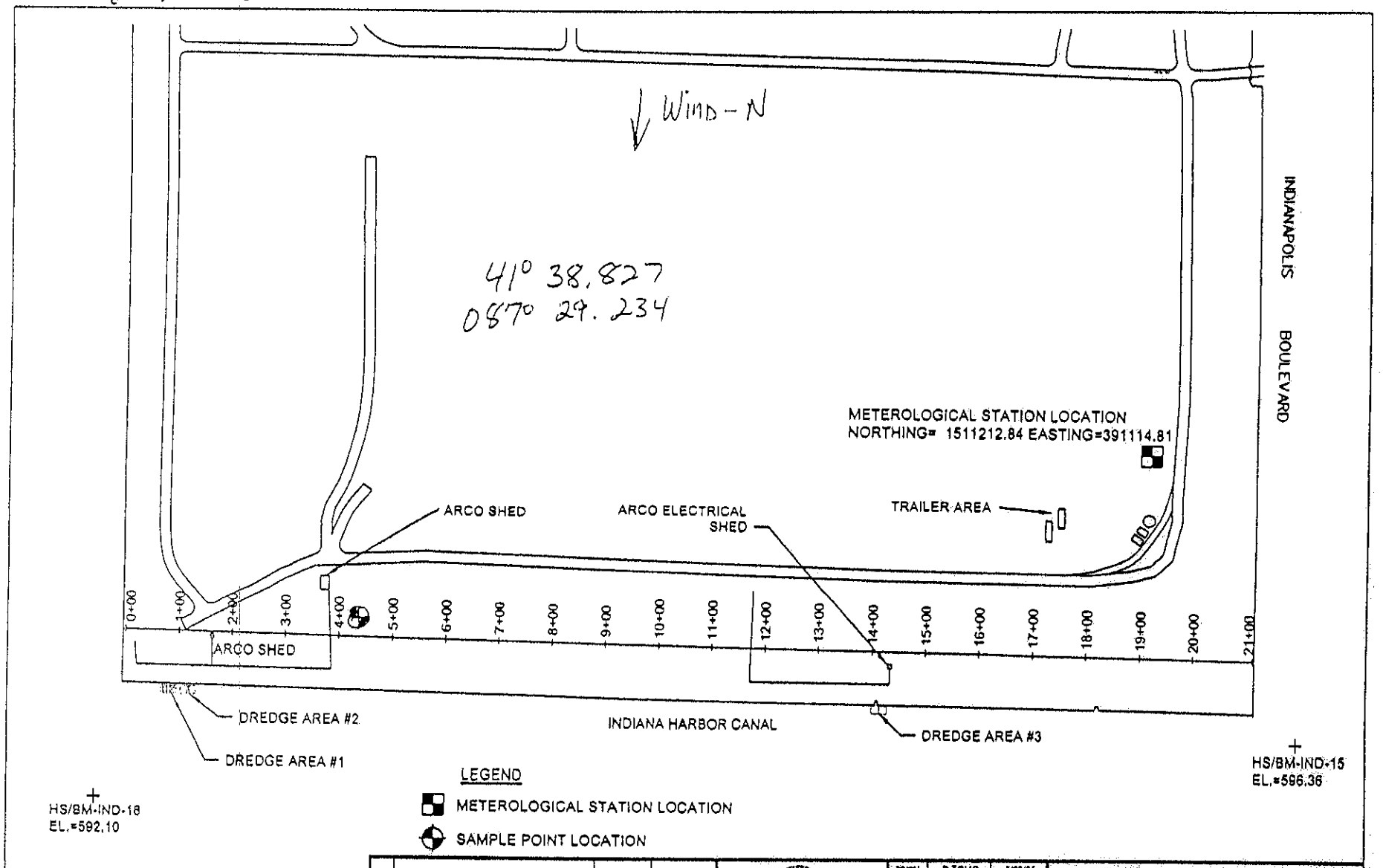
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:38:32 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.180 mg/m³
Time at maximum: 13:41:10 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:38:32 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	13:43:32	0.006

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:25:34 20-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:25:34 Jun 20
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:25:34 Jun 20
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jun	15:30:34	0.001

6-29-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-20-05 0902	PDR	[illegible]	zero Calibration	"Cal. OK"	Sunny, lt wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

SAMPLING DATA SHEET

Site: Indiana Harbor
PN: 030244
Date: 6 / 20 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	Vol 062005					6:20	6:15	24	6
TO-13	Emi Vol 062005					6:25	6:15	24	1,010L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

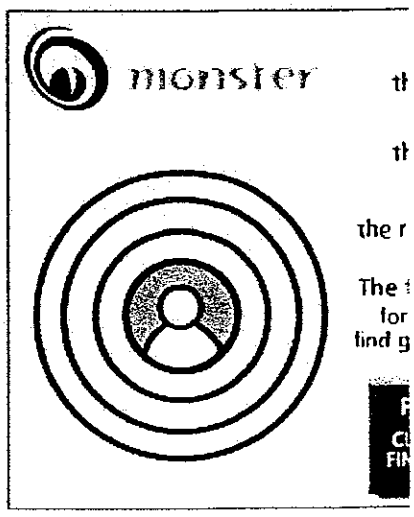
Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: Diving, Off load rolloff boxes, man rollOFFS area 3+2
Weather conditions: Sunny, NW → NE wind
Analytical lab: ETL
COC Number: ETL-13126, ETL-13127

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **55°F**	**55°F**	54°F	94%	7.0 miles	30.18	calm
	Sunrise at 5:15 AM						
5:55 AM	Partly Cloudy **55°F**	**55°F**	54°F	94%	10.0 miles	30.19 ↑	calm
6:50 AM	Partly Cloudy **64°F**	**64°F**	59°F	83%	10.0 miles	30.20 ↑	calm
7:45 AM	Sunny **70°F**	**70°F**	61°F	73%	Unlimited	30.21 ↑	Variable 5mph
8:47 AM	Partly Cloudy **73°F**	**73°F**	57°F	57%	10.0 miles	30.22 ↑	calm
9:50 AM	Partly Cloudy **75°F**	**75°F**	57°F	53%	10.0 miles	30.21 ↓	calm
10:50 AM	Partly Cloudy **79°F**	**79°F**	57°F	47%	10.0 miles	30.21 →	Variable 5mph
11:49 AM	Mostly Cloudy **81°F**	**81°F**	59°F	48%	10.0 miles	30.22 ↑	From N 9mph
12:45 PM	Mostly Cloudy **81°F**	**81°F**	57°F	45%	10.0 miles	30.20 ↓	From NE 12mph
1:50 PM	Mostly Cloudy **82°F**	**82°F**	57°F	42%	10.0 miles	30.18 ↓	From NE 12mph
2:50 PM	Mostly Cloudy **82°F**	**82°F**	57°F	42%	10.0 miles	30.14 ↓	Variable 6mph
3:50	Mostly						Variable



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Parks & recreation area forecas
- Mosquito activity levels

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Airfare Secrets

PM	Cloudy 82°F	82°F	57°F	42%	Unlimited	30.11 ↓	7mph
4:50 PM	Mostly Cloudy 82°F	82°F	55°F	39%	Unlimited	30.10 ↓	Variable 7mph
5:50 PM	Partly Cloudy 81°F	80°F	55°F	42%	Unlimited	30.10 →	From NNE 12mph
6:50 PM	Partly Cloudy 79°F	78°F	55°F	44%	Unlimited	30.10 →	From NNE 9mph
7:55 PM	Partly Cloudy 79°F	79°F	57°F	47%	Unlimited	30.10 →	Variable 7mph
Sunset at 8:27 PM							
8:50 PM	Partly Cloudy 70°F	70°F	64°F	83%	Unlimited	30.11 ↑	Variable 7mph
9:50 PM	Partly Cloudy 66°F	66°F	59°F	78%	Unlimited	30.11 →	Variable 5mph

Avg. 74° 30.16

Back to previous page

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13126

Project No.	Project Name
031 244	Duluth Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lehany / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
Vac 062005	6-20-05	7:46	Sump Canister	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-21-05	0815	[signature]	6/21	[illegible]
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site.

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/29/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13127

Project No.	Project Name
030744	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ron Lebang / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Fini. Vol 06.2005	6.2005	2hr	filter	1,610 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ron Lebang	6-7-05	0945	[illegible]	6/7	945
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/29/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**82°F**	**55°F**	**N/A in**
Averages	**82°F**	**62°F**	--
Records	**102°F** (1953)	**49°F** (1980)	--

Sunrise: **5:15 AM**

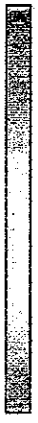
Sunset: **8:27 PM**

Waxing Gibbous

On The Spot Weather

Choose Location

Yesterday's Reported Conditions



Act Low 55°F

49°F Record Low

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

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6/15

Past Weather as reported at

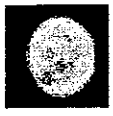
Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**77°F**	**52°F**	**N/A in**
Averages	**81°F**	**62°F**	--
Records	**99°F** (1953)	**51°F** (1982)	--

Sunrise: **5:15 AM**

Sunset: **8:26 PM**

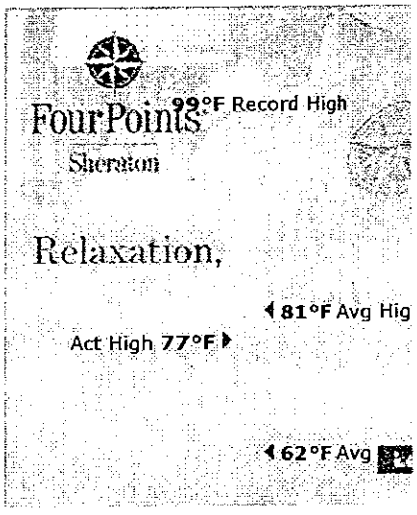


Waxing Gibbous

On The Spot Weather

Choose Location

Yesterday's Reported Conditions



99°F Record High

81°F Avg Hig

Act High 77°F

62°F Avg

Act Low 52°F

51°F Record Low

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	—
Records	**104°F** (1988)	**41°F** (1972)	—

Averages and Records

Check daily averages for the entire month

June GO

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 215 Page 1 of 2 DATE 21 Jun 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 66 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed dredging of the coffer dam area. EQM loaded trucks and installed silt fence along the southern edge of the property. Griffin continued dewatering of the dredge spoil. No new analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and two laborers from Maintenance Dynamics, two representatives of Griffin Dewatering, and 5 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 215

DATE 21 Jun 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		2.0	16.0
Maintenance Dynamics	LABORERS		2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	24.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	2,330.0	Total	13.0	105.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CR02136	Small Excavator		4.0	4.0
Total operating hours to date: 510.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/23/5		6-23-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:53:52 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 2.057 mg/m³
Time at maximum: 09:54:25 Jun 21
Max STEL Concentration: 0.022 mg/m³
Time at max STEL: 09:54:22 Jun 21
Overall Avg Conc: 0.039 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	09:58:52	0.069

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:48:19 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.069 mg/m³
Time at maximum: 11:53:10 Jun 21
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:48:19 Jun 21
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	11:53:19	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:12:53 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.504 mg/m³
Time at maximum: 14:13:14 Jun 21
Max STEL Concentration: 0.015 mg/m³
Time at max STEL: 14:17:53 Jun 21
Overall Avg Conc: 0.041 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	14:17:53	0.044

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:44:38 21-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.104 mg/m³
Time at maximum: 15:46:30 Jun 21
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 15:46:38 Jun 21
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jun	15:49:38	0.011

Site: Indiana Harbor CDF
PN 030294
Date: 6 / 21 / 05
Page: 1 of 1

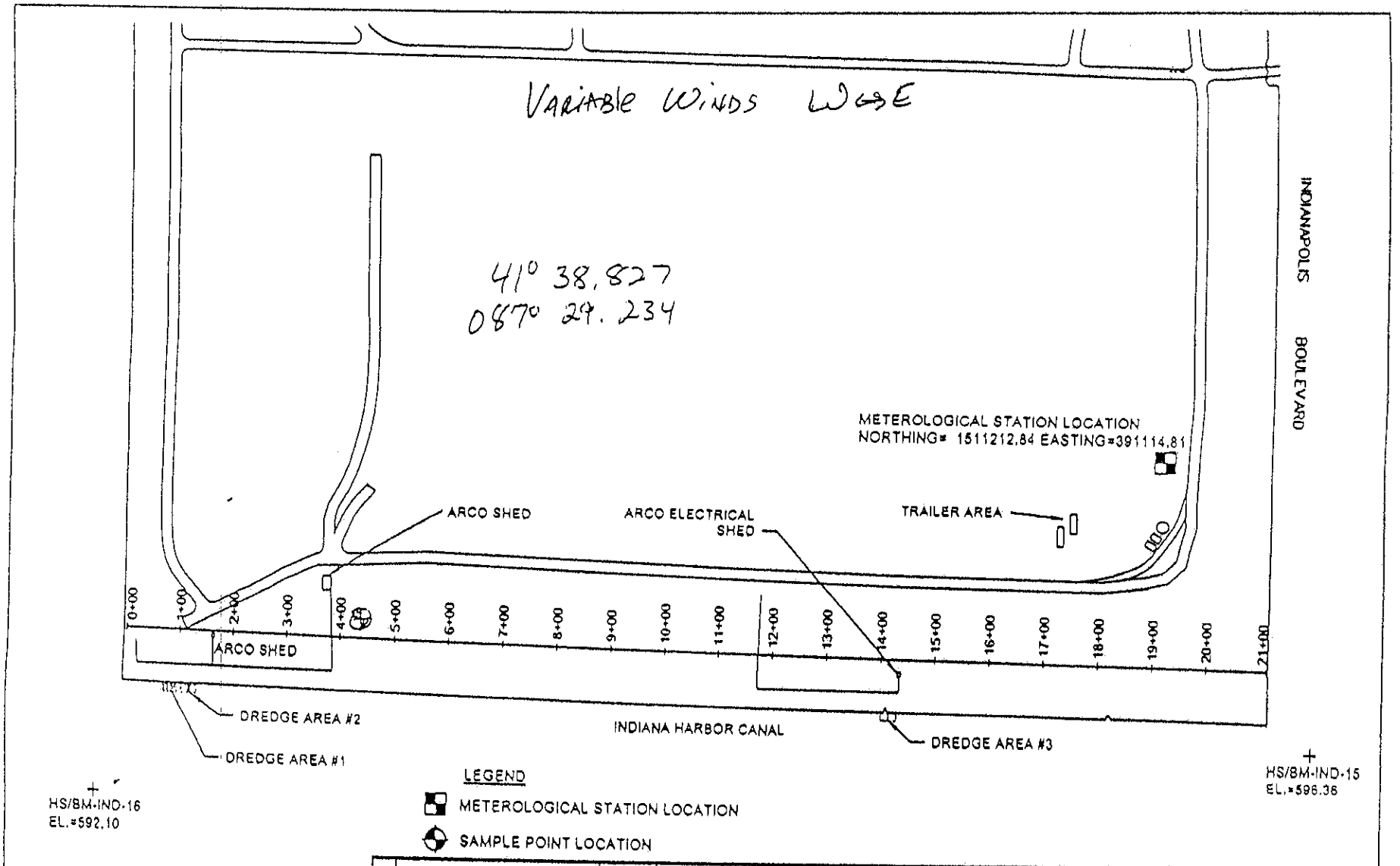
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TD-15	Vox 062105					06:25	06:20	24	6L
TD-13	Semi Vol 062105					06:25	06:20	24	1005.4 L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: DREDGING, LOADING HOLD OF BARGE
Weather conditions: SUNNY, HOT, HUMID, VARIABLE LT. WIND
Analytical lab: STL
COC Number: EQ-13128, EQ-13129

6-21-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

SHEET SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
06-24-05 0828	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, West wind (light), Hot, Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 68°F	68°F	59°F	73%	10.0 miles	30.05	Variable 5mph
Sunrise at 5:16 AM							
5:50 AM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.06	Variable 5mph
6:50 AM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30.06	Variable 5mph
7:50 AM	Partly Cloudy 75°F	76°F	63°F	65%	Unlimited	30.06	From W 9mph
8:50 AM	Partly Cloudy 81°F	82°F	63°F	54%	Unlimited	30.06	From W 12mph
9:45 AM	Partly Cloudy 81°F	81°F	61°F	51%	Unlimited	30.05	From W 12mph
10:45 AM	Mostly Cloudy 84°F	85°F	63°F	48%	10.0 miles	30.05	From W 9mph
11:50 AM	Mostly Cloudy 88°F	89°F	64°F	46%	10.0 miles	30.04	From W 9mph
12:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	10.0 miles	30.03	From W 12mph
1:55 PM	Mostly Cloudy 82°F	84°F	64°F	54%	10.0 miles	30.02	From NNE 12mph
2:45 PM	Mostly Cloudy 82°F	85°F	66°F	58%	10.0 miles	30.02	From NE 14mph
	Partly						

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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3:50 PM	Cloudy 79°F	80°F	64°F	61%	Unlimited	30.03	From NNE 9mph
4:50 PM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.03	From NNE 9mph
5:50 PM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.04	From NNE 14mph
6:50 PM	Mostly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.04	From NNE 12mph
7:50 PM	Mostly Cloudy 73°F	73°F	66°F	78%	Unlimited	30.04	From NNE 12mph
Sunset at 8:27 PM							
8:50 PM	Mostly Cloudy 70°F	70°F	66°F	88%	Unlimited	30.06	From NNE 8mph
9:50 PM	Mostly Cloudy 66°F	66°F	63°F	88%	Unlimited	30.06	Variable 7mph

Avg. 77° 30.04

Back to previous page

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3x5 = 15
6x6 = 36
4x4 = 16
3x3 = 9
2x2 = 4

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12 PM | Weather Center

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13120

Project No.	Project Name
03C 244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Cleary / [illegible] / [illegible]

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
Voc 062105	6-21-05	2400	Summa Canister	6L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	6/22/05	820	[signature]	6/22/05	820
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:	Turn Around Time (***EXACT DUE DATE***): 6-30-05	Report To: JAKIE DOAN	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13129

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TEST: TO-13/8270	TEST: TO-13/1668
Sam-Vol 062105	6-21-05	24hr.	Filter	1,005.46	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-22-05	0820	[signature]	6/24/05	820
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 6-30-05

Report To: Tatie Dunn

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Past Weather as reported at

Gary

June 21 hourly reports

	High	Low	Precip
Actuals	**91°F**	**66°F**	**N/A in**
Averages	**82°F**	**62°F**	--
Records	**103°F** (1988)	**47°F** (1963)	--

Sunrise: **5:15 AM**

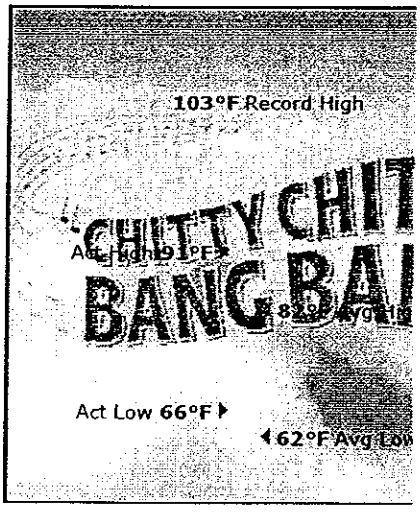
Sunset: **8:27 PM**

Waxing Gibbous

On The Spot Weather

Choose Location

June 21's Reported Conditions



47°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

June GO

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 216

DATE 22 Jun 2005 – Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P5-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 63 °F, Max 79 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher/Onyx divers cleared the pipes to be removed of sediment. Thatcher completed the dredging. EQ demolished the dewatering cell for area 3. No new analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and two laborers from Maintenance Dynamics, two representatives of Griffin Dewatering, 5 divers from Onyx/Thatcher, and 5 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 216

DATE 22 Jun 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		2.0	16.0
Maintenance Dynamics	LABORERS		2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	24.0
Thatcher Engineering	DIVER PUMPER		5.0	40.0
Total hours worked to date:	2,476.0	Total	18.0	146.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		4.0	4.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		0.0	8.0
6CRC2136	Small Excavator		8.0	0.0
Total operating hours to date: 522.0		Total	20.0	12.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	6/23/5	[signature]	6-23-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:35:08 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.264 mg/m³
Time at maximum: 09:35:12 Jun 22
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 09:35:38 Jun 22
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	09:40:08	0.01

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:33:44 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.258 mg/m³
Time at maximum: 11:33:52 Jun 22
Max STEL Concentration: 0.007 mg/m³
Time at max STEL: 11:38:44 Jun 22
Overall Avg Conc: 0.025 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	11:38:44	0.038

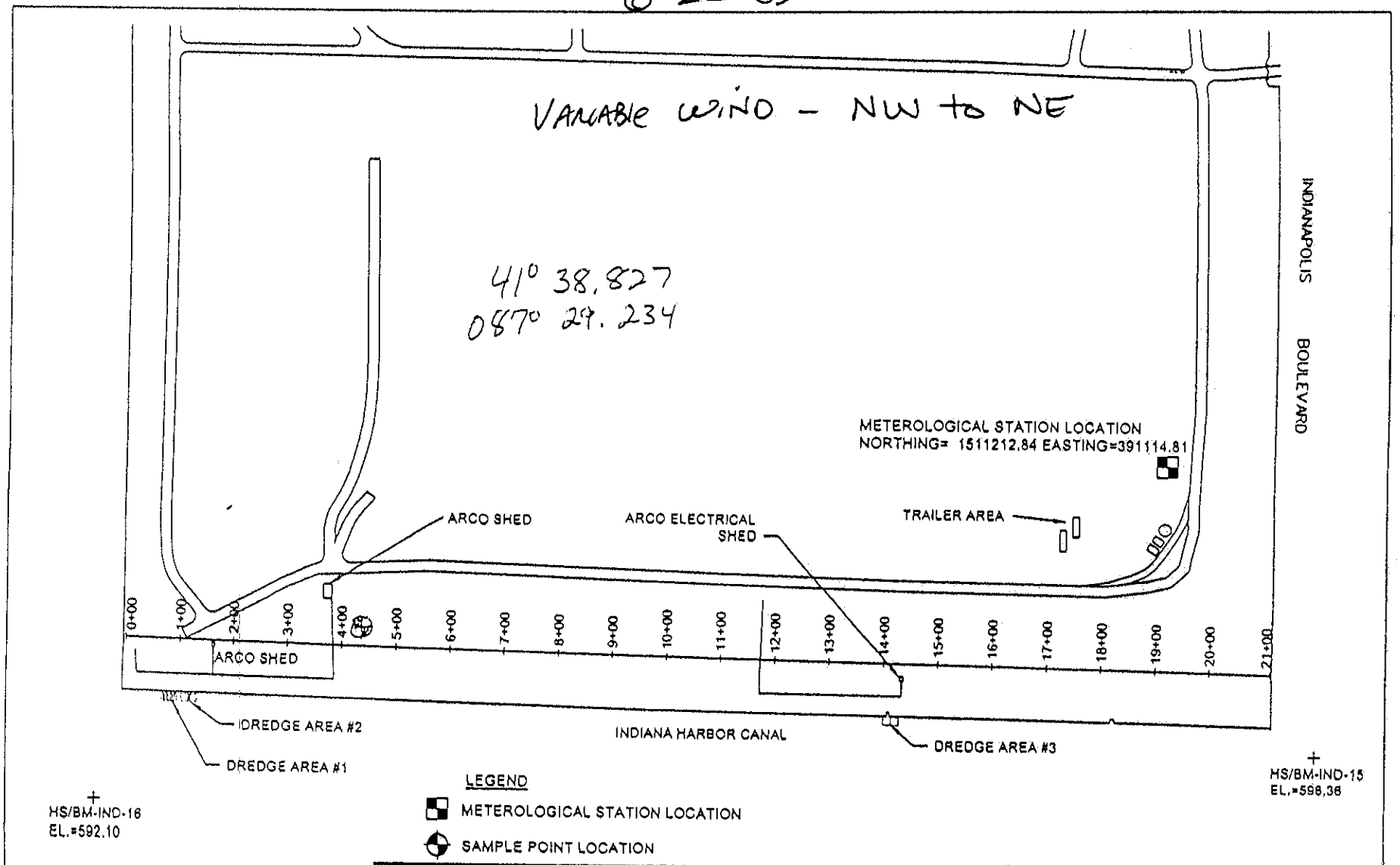
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:09:55 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.079 mg/m³
Time at maximum: 13:11:12 Jun 22
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:09:55 Jun 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	13:14:55	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:22:26 22-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.165 mg/m³
Time at maximum: 15:23:28 Jun 22
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 15:24:26 Jun 22
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jun	15:27:26	0.016

6-22-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF

OBSTRUCTION REMOVAL AIR MONITORING

LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

Site: Indiana Harbor Obstruction Removal
PN 030244
Date: 6 / 22 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min.	Air Volume, liters
TO-15	Vol 062205					06:25	06:25	24hr	6
TO-13	Sami 6/06 2205					06:25	06:25	24hr.	1,056.7
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Dredging Diving
Weather conditions: Sunny Variable wind Hot Humid
Analytical lab: SAL
COC Number: EQ-13130, EQ-13131

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

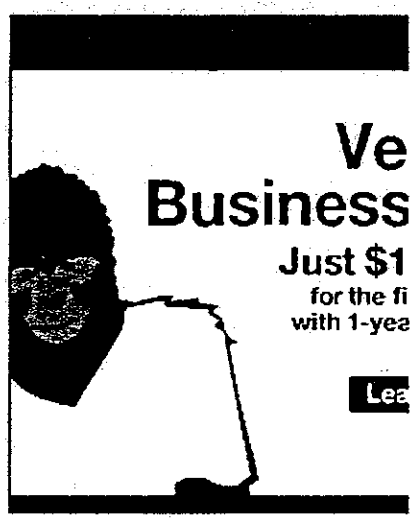
DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
06/22/05 0610	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Hot, Humid Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:49 AM	Partly Cloudy 68°F	68°F	61°F	78%	Unlimited	30.10	From N 9mph
Sunrise at 5:16 AM							
5:50 AM	Partly Cloudy 68°F	68°F	61°F	78%	Unlimited	30.12 ↑	From N 9mph
6:50 AM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.14 ↑	From N 9mph
7:45 AM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.14 →	From N 9mph
8:50 AM	Partly Cloudy 73°F	73°F	55°F	53%	Unlimited	30.16 ↑	From NNE 9mph
9:55 AM	Partly Cloudy 73°F	73°F	57°F	57%	Unlimited	30.17 ↑	From NNE 9mph
10:50 AM	Sunny 75°F	75°F	54°F	47%	Unlimited	30.19 ↑	From NNE 12mph
11:50 AM	Sunny 75°F	74°F	45°F	34%	Unlimited	30.19 →	From NNE 12mph
12:50 PM	Sunny 75°F	75°F	55°F	50%	Unlimited	30.18 ↓	From NNE 9mph
1:51 PM	Sunny 75°F	75°F	52°F	44%	Unlimited	30.16	From NNE 14mph
2:50 PM	Sunny 75°F	75°F	55°F	50%	Unlimited	30.15 ↓	From NNE 12mph
3:50 PM	Sunny 79°F	78°F	48°F	34%	Unlimited	30.14 ↓	From N 9mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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Wedding photography

4:50 PM	Sunny 79°F	79°F	57°F	47%	Unlimited	30.12 ↓	From N 7mph
5:50 PM	Sunny 73°F	73°F	57°F	57%	Unlimited	30.11 ↓	Variable 7mph
6:45 PM	Sunny 73°F	73°F	57°F	57%	Unlimited	30.11 →	Variable 7mph
7:50 PM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.11 →	Variable 7mph
Sunset at 8:27 PM							
8:45 PM	Partly Cloudy 63°F	63°F	57°F	82%	Unlimited	30.11 →	Variable 5mph
10:00 PM	Partly Cloudy 63°F	63°F	59°F	88%	Unlimited	30.12 ↑	Variable 5mph

Avg. 72° 30.14

Back to previous page

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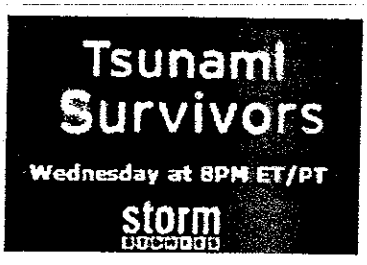

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Now | First Outlook

9 AM | Day Planner

12 PM | Weather Center

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13130

Project No.	Project Name
031-244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / [illegible] / [illegible] EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15											
VOC 062205	6-22-05	24hr.	Summa Canister	6 L	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[illegible]	6-23-05	8:10	[illegible]	6/23/05	8:10	STL - Pick up On site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 6/30/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13131

Project No.: 030241

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: To-13 / 8270	TESTS: To-13 / 1668
Mini-Vol C62705	6-27-05	7:11	Filter	1,056.7 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-27-05	8:40	[illegible]	6/27/05	8:40
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 6/30/05

Report To: Jackie Dann

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**79°F**	**63°F**	**N/A in**
Averages	**82°F**	**63°F**	--
Records	**101°F** (1988)	**46°F** (1963)	--

Sunrise: **5:15 AM**

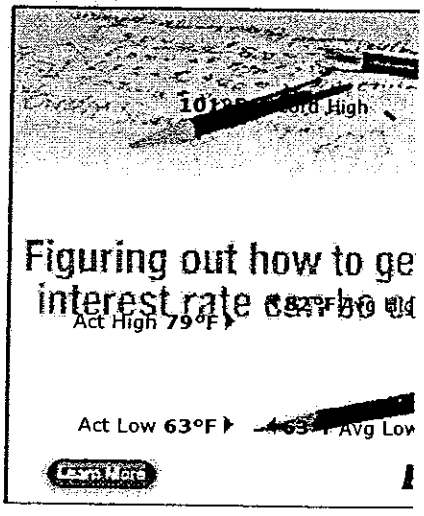
Sunset: **8:27 PM**

Full

On The Spot Weather

Choose Location

Yesterday's Reported Conditions



46°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

June GO!

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Mosquito activity levels
- Home repair check list

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 217

DATE 23 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Mn 66 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on pipe removal due to the unavailabilty of divers. EQ continued with site prep work and drying of dredge sediment. Griffin continued dewatering of the cell for area 2. No new analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WiliamBrunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards fromTask Force, one operator and two laborers from Maintenance Dynamics, two representatives of Griffin Dewatering, 5 divers fromOnyx/Thatcher, and 5 representatives from Thatcher Engineering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 217

DATE 23 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EGM	SAFETY ENGINEER - ON SITE	1.0	10.0
EGM	SUPER - JOB	1.0	8.0
EGM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	2.0	16.0
Maintenance Dynamics	LABORERS	2.0	16.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	3.0	24.0
Thatcher Engineering	DIVER PUMPER	5.0	40.0
		Total 18.0	146.0

Total hours worked to date: 2,622.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
		Total 24.0	8.0

Total operating hours to date: 530.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/27/5		6-27-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:31:59 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.114 mg/m³
Time at maximum: 09:36:05 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:31:59 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	09:36:59	0.005

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:03:44 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.011 mg/m³
Time at maximum: 11:09:39 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:03:44 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

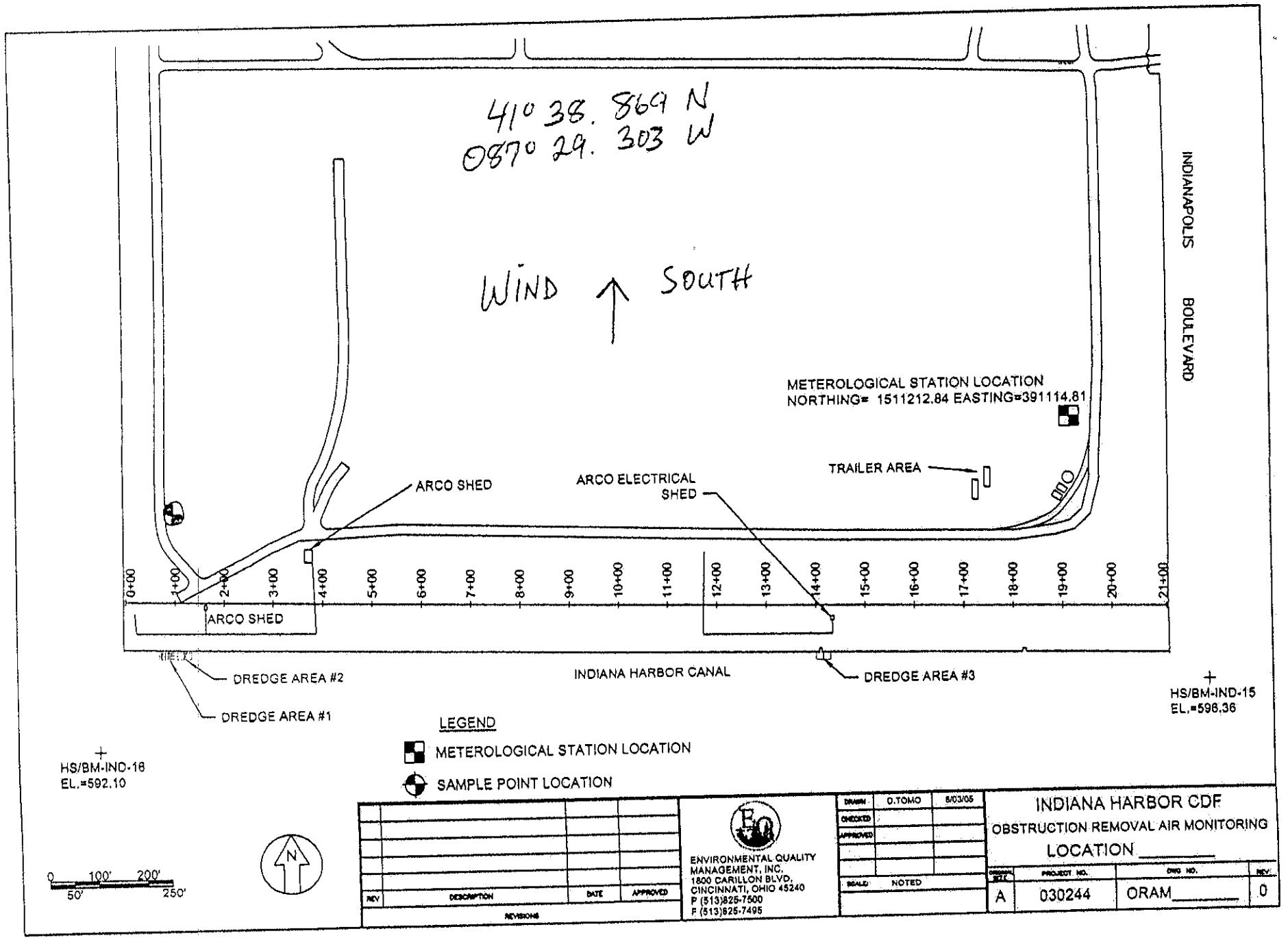
Point	Date	Time	Avg.(mg/m³)
1	23-Jun	11:08:44	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:07:22 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.233 mg/m³
Time at maximum: 13:13:35 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:07:22 Jun 23
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	13:12:22	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:12:40 23-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.286 mg/m³
Time at maximum: 15:12:41 Jun 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:12:40 Jun 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Jun	15:17:40	0.01


41° 38. 869 N
087° 29. 303 W
WIND ↑ SOUTH
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
O.TOMO
6/03/05
CHECKED
APPROVED
SCALE
NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
SIZE
A
PROJECT NO.
030244
DWG NO.
ORAM
REV.
0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Tulima Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-23-05 0813	PDR	[signature]	ZERO Calibration	"Cal OK"	Sunny - S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

SAMPLING DATA SHEET

Site:
PN 030244
Date: 6 / 23 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ Hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC062305					07:20	06:45	23.5	6 L
TO-13 Sim	VOC062305					07:20	06:45	23.5	1,001.7 L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Remove timbers, Dredge, wheel spoil; Dewatch
Weather conditions: Sunny Hot Humid, Sweltering
Analytical lab: STL COC Number: EQ-13132, EQ 13133

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 66°F	66°F	57°F	73%	Unlimited	30.09	From SSE 8mph
Sunrise at 5:16 AM							
5:50 AM	Mostly Cloudy 66°F	66°F	55°F	68%	Unlimited	30.10	From SSE 12mph
6:50 AM	Partly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.10	From SSE 12mph
7:50 AM	Partly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.09	From SSE 14mph
8:50 AM	Partly Cloudy 75°F	76°F	59°F	57%	Unlimited	30.09	From S 14mph
9:50 AM	Partly Cloudy 81°F	81°F	57°F	45%	Unlimited	30.09	From S 12mph
10:50 AM	Cloudy 84°F	84°F	59°F	42%	Unlimited	30.08	From SSE 9mph
11:50 AM	Mostly Cloudy 88°F	88°F	61°F	40%	Unlimited	30.06	From SSE 14mph
12:50 PM	Mostly Cloudy 91°F	93°F	63°F	38%	Unlimited	30.05	From S 9mph
1:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	30.02	From S 9mph
2:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	Unlimited	30.01	From S 14mph
3:50	Partly						From S

Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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PM	Cloudy 91°F	95°F	66°F	43%	10.0 miles	29.99 ↓	12mph
4:45 PM	Partly Cloudy 91°F	95°F	66°F	43%	10.0 miles	29.97 ↓	From SSW 12mph
5:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	10.0 miles	29.96 ↓	From S 9mph
7:55 PM	Partly Cloudy 91°F	98°F	72°F	52%	10.0 miles	29.95 →	From S 7mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 86°F	89°F	68°F	55%	10.0 miles	29.95 →	From SSE 7mph
9:50 PM	Partly Cloudy 84°F	87°F	68°F	58%	10.0 miles	29.97 ↑	From SSE 9mph

AVG. 85° 30.03

Back to previous page

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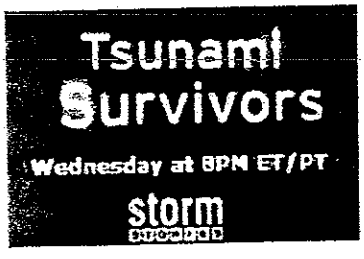

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

Watch Tsunami Survivors this Wednesday at 8 PM ET/PT

Tune to The Weather Channel Radio in your

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Weather a

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 15132

Project No.	Project Name
030244	Indiana Harbor Construction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 06-2305	6-23-05	23.5hr	Sum. Can.	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-24-05	8:50	[illegible]	6/24	850
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7/5/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13133

Project No.: D30 241

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi. Vol 060705	6/30/05	23.5M	Filter	1,001.7 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6/24/05	8:50	[illegible]	6/24/05	800
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7/5/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Past Weather as reported at

Gary

June 23 hourly reports

	High	Low	Precip
Actuals	91°F	66°F	N/A in
Averages	82°F	63°F	--
Records	98°F (1988)	49°F (1972)	--

Sunrise: **5:15 AM**

Sunset: **8:27 PM**

Full

On The Spot Weather

Choose Location

June 23's Reported Conditions

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

Month-to-Date

	High	Low	Precip
Month to date	91°F	52°F	NaN in
Average	80°F	61°F	--
Records	104°F (1988)	41°F (1972)	--

Averages and Records

Check daily averages for the entire month

June GO

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 218

DATE 24 Jun 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 79 °F, Max 97 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on pipe removal due to the unavailabilty of divers. EQ continued with site prep work and drying of dredge sediment. Griffin continued dewatering of the cell for area 2. No new analytical air sampling results were received. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, three security guards fromTask Force, one operator and one laborer fromMaintenance Dynamics, and one representative of Griffin Dewatering.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 218

DATE 24 Jun 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER- ON SITE	1.0	10.0
EQM	SUPER- JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	1.0	8.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	5.0	42.0

Total hours worked to date: 2,664.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
	Total	24.0	8.0

Total operating hours to date: 538.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/27/05		6-27-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:45:05 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:45:05 Jun 24
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:45:05 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	09:50:05	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:17 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.729 mg/m³
Time at maximum: 11:30:14 Jun 24
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 11:26:47 Jun 24
Overall Avg Conc: 0.030 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	11:30:17	0.053

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 3
Start time and date: 13:35:19 24-Jun
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.424 mg/m³
Time at maximum: 13:42:31 Jun 24
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:35:19 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	13:40:19	0.001
2	24-Jun	13:45:19	0.048

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:30:43 24-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.141 mg/m³
Time at maximum: 15:30:57 Jun 24
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:31:13 Jun 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Jun	15:35:43	0.007

Site:	Indiana Harbor Obstruction
PN	030244
Date:	6/24/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC062405					06:45	06:25	24	6
TO-13	Semi-Vol 062405					06:45	06:25	24	1,009.2L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

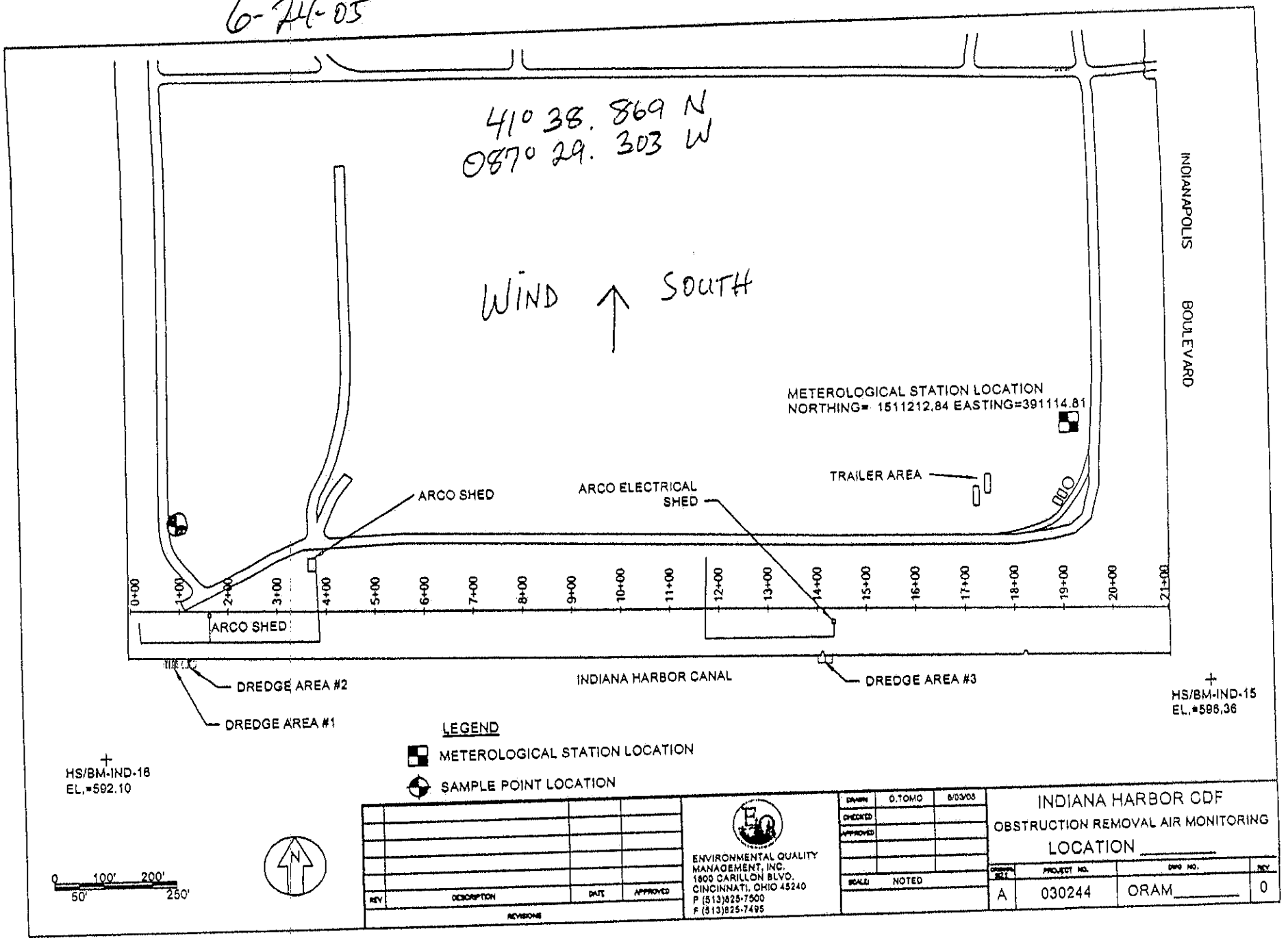
Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: Turning dredge spoil; site cleanup

Weather conditions: Sunny, Hot, Humid, Wind S-SW

Analytical lab: STL COC Number: ~~TO~~-13134, ~~TO~~-13135

6-24-05


41° 38. 869 N
087° 29. 303 W
WIND
SOUTH
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
D.TOMO
6/03/05
CHECKED
APPROVED
SCALE
NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
A
030244
ORAM
0

SAMPLING EQUIPMENT CALIBRATION LOG

ite Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-24-05 0812	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny 95+°, Humid S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

6-24-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

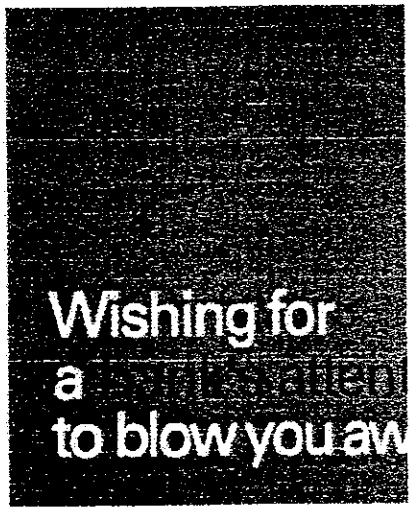
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Clear 79°F	82°F	70°F	74%	7.0 miles	29.99	From SSW 9mph
Sunrise at 5:17 AM							
5:55 AM	Sunny 79°F	82°F	70°F	74%	7.0 miles	29.99 →	From SSW 14mph
6:50 AM	Haze 79°F	82°F	70°F	74%	6.0 miles	30.00 ↑	From SSW 12mph
7:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	30.01 ↑	From SW 14mph
8:50 AM	Sunny 82°F	87°F	72°F	70%	7.0 miles	30.01 →	From SW 14mph
9:50 AM	Sunny 88°F	95°F	73°F	62%	7.0 miles	29.99 ↓	From SSW 12mph
10:48 AM	Partly Cloudy 91°F	100°F	73°F	55%	10.0 miles	30.00 ↑	From WSW 12mph
11:50 AM	Partly Cloudy 93°F	100°F	70°F	46%	10.0 miles	29.99 ↓	From WSW 12mph
12:15 PM	Partly Cloudy 95°F	99°F	66°F	39%	10.0 miles	29.97 ↓	From WSW 12mph
1:50 PM	Partly Cloudy 95°F	99°F	66°F	39%	10.0 miles	29.96 ↓	From WSW 12mph
2:50 PM	Partly Cloudy 95°F	96°F	61°F	32%	10.0 miles	29.95 ↓	From WSW 12mph
3:55 PM	Partly Cloudy 97°F	98°F	61°F	30%	10.0 miles	29.94 ↓	From WSW 12mph



Today in East Chicago

- Rush hour traffic report
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Mosquito activity levels

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13135

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Ben Lehing / [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Semi-Vol 062405	6-24-05	24hr.	Filter	1,007.2 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-25-05	0810	[signature]	6/25/05	0810
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: DROP AT STL LAIPO

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7/5/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13134

Project No.: 0307441

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Benjamin Berfelz / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 062405	6-24-05	24hr	Summa Canister	Lab	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-25-05	0810	Wendy [illegible]	6/25/05	0810
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop off at STL UAPD

Airbill Number:

Chain of Custody Seal Numbers:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): ~~7 days~~ 7/5/05

Report To: Jackie Doan

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

4:50 PM	Partly Cloudy 97°F	98°F	61°F	30%	10.0 miles	29.94 →	From WSW 12mph
5:50 PM	Partly Cloudy 95°F	96°F	59°F	30%	10.0 miles	29.93 ↓	From SW 12mph
6:50 PM	Sunny 95°F	95°F	57°F	28%	10.0 miles	29.94 ↑	From SW 14mph
7:55 PM	Sunny 91°F	91°F	57°F	31%	10.0 miles	29.95 ↑	From SW 12mph

Sunset at 8:28 PM

8:50 PM	Partly Cloudy 90°F	90°F	61°F	38%	10.0 miles	29.96 ↑	From SSW 9mph
9:50 PM	Partly Cloudy 88°F	89°F	63°F	43%	10.0 miles	29.99 ↑	From SW 9mph

Back to previous page

Avg. 84° 29.97

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Tips to gro yard in spr

Driving Weather
Check curr conditions

Summer Adventure
Find perfec your sumn

Desktop Weather
FREE weat on your de

Travel
Find your here!

Past Weather as reported at

Gary

June 24 hourly reports

	High	Low	Precip
Actuals	**97°F**	**79°F**	**N/A in**
Averages	**82°F**	**63°F**	--
Records	**94°F** (1966)	**49°F** (1972)	--

Sunrise: **5:16 AM**

Sunset: **8:28 PM**

Waning Gibbous

On The Spot Weather

Choose Location

June 24's Reported Conditions

Today in East Chicago

Month-to-Date

	High	Low	Precip
Month to date	**97°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	—
Records	**104°F** (1988)	**41°F** (1972)	—

Averages and Records

Check daily averages for the entire month

June GO

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 221

DATE 27 Jun 2005 - Monday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 75 °F, Max 95 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on pipe removal due to the unavailabilty of divers. EQ continued with site prep work and drying of dredge sediment. Analytical air sampling results were received and are being tabulated.. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following activity was started today:

Activity No	Description
0006-01-01	14" Pipe Dredge Area 2, Cut & Remove Pipe

No activities were finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 221

DATE 27 Jun 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
BCM	SAFETY ENGINEER - ON SITE	1.0	10.0
BCM	SUPER - JOB	0.0	0.0
BCM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGEMT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	4.0	34.0

Total hours worked to date: 2,698.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
	Total	24.0	8.0

Total operating hours to date: 546.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/28/5		6-29-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:59:17 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.042 mg/m³
Time at maximum: 09:59:30 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:59:17 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	10:04:17	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:33:17 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.003 mg/m³
Time at maximum: 12:33:38 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:33:17 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	12:38:17	0.002

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:36:37 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:36:37 Jun 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:36:37 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	14:41:37	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:33:03 27-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.242 mg/m³
Time at maximum: 15:33:21 Jun 27
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:33:33 Jun 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jun	15:38:03	0.012

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
062705 0805	PDR	[signature]	Zero Calibration	"Cal OK"	Sunny Hot Humid S-wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site:	Indiana Harbor
PN	030244
Date:	6 / 27 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 062705					07:00	06:30	23.5	6
TO-13	SVMHC 062705					07:00	06:30	23.5	961.3
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BF

Calculations by: [illegible]

Checked by:

Activities performed on site: Site Clearing Drafty Spec on Site

Weather conditions: Sunny, Hot, Humid S-Wind

Analytical lab: STL

COC Number: EQ 13138, 13139

6-27-05

41° 38. 869 N
087° 29. 303 W

WIND ↑ SOUTH

INDIANAPOLIS BOULEVARD

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81

TRAILER AREA

ARCO ELECTRICAL SHED

ARCO SHED

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

ARCO SHED

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-15
EL.=595.36

DREDGE AREA #2

DREDGE AREA #1

HS/BM-IND-18
EL.=592.10

LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION

0 50' 100' 200' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
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DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

CONTRACT NO.	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13138

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lebang EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-14
VOC 062705	6/27/05	1335	Air Summa	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Lebang	6/28/05	8:41	[signature]	6/28	845
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): ~~7DAY~~ 7/8/05

Report To: Jackie Dorn

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13139

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Ben Lotary / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 7013/8270	TESTS: 7013/1668
Ani-Vol 062705	6-27-05	23 Sre.	Filter	961.3 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-28-05	8:45	[signature]	6/1	[illegible]
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: SIL - Put up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 10 day 7/7/05

Report To: Tarkie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

6-27-05

Enter city or US zip See weather related to ... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

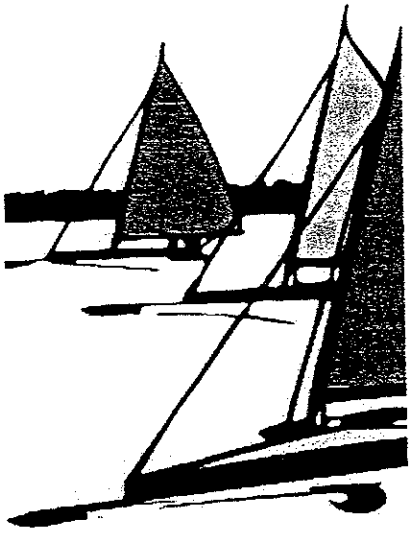
Yesterday's Hourly Conditions as reported at Gary

Yesterday - Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Clear 75°F	78°F	70°F	83%	7.0 miles	30.06	From S 9mph
Sunrise at 5:18 AM							
5:50 AM	Haze 75°F	78°F	72°F	89%	5.0 miles	30.07 ↑	Variable 5mph
6:50 AM	Haze 77°F	80°F	72°F	83%	5.0 miles	30.07 →	Variable 5mph
7:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	30.08 ↑	Variable 5mph
8:46 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	30.08 →	Variable 5mph
9:47 AM	Haze 88°F	95°F	73°F	62%	5.0 miles	30.08 →	From S 9mph
10:50 AM	Sunny 91°F	98°F	72°F	52%	7.0 miles	30.07 ↓	From WSW 9mph
11:45 AM	Partly Cloudy 91°F	96°F	68°F	46%	7.0 miles	30.07 →	From SSW 9mph
12:45 PM	Partly Cloudy 91°F	95°F	66°F	43%	7.0 miles	30.06 ↓	From SSW 9mph
1:45 PM	Partly Cloudy 93°F	96°F	64°F	38%	7.0 miles	30.04 ↓	From SSW 9mph
2:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.02 ↓	From S 14mph
3:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.01 ↓	From S 12mph

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-
Race. http://team.abnamro.com

Sailing under one flag TEAM ABN AMRO

Special Offers in East Chic

4:50 PM	Partly Cloudy 95°F	98°F	64°F	36%	7.0 miles	30.00 ↓	From S 12mph
5:50 PM	Partly Cloudy 93°F	95°F	63°F	36%	7.0 miles	29.98 ↓	From S 9mph
6:50 PM	Partly Cloudy 91°F	93°F	63°F	38%	7.0 miles	29.96 ↓	From SSE 12mph
7:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	7.0 miles	29.96 →	From S 9mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 88°F	90°F	66°F	49%	7.0 miles	29.97 ↑	From S 9mph
9:50 PM	Clear 84°F	87°F	68°F	58%	7.0 miles	30.00 ↑	From SSE 8mph

Avg. 85° 29.03

Back to previous page

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Near East Chicago, IN (46312)
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Enter Course Name GO!

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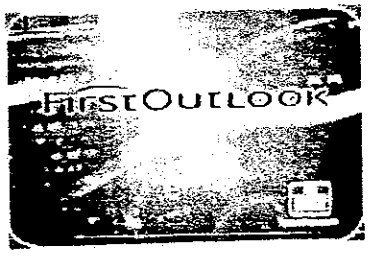
- Free Desktop Weather

What's on The Weather Channel

Find TWC on your TV



On-Air Schedule (ET)

Now | First Outlook

9 AM | Day Planner

12 PM | Weather Center

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Feature Finds

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This Week's Features

Summer Lawn Care

Tips to gro
yard in hot
weather.

Driving Weather

Check curr
conditions

Summer Adventure

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your sumn

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on your de

Health

Weather a

Past Weather as reported at

Gary

June 27 hourly reports

	High	Low	Precip
Actuals	**95°F**	**75°F**	**N/A in**
Averages	**83°F**	**64°F**	--
Records	**98°F** (1971)	**52°F** (1974)	--

Sunrise: **5:17 AM**

Sunset: **8:28 PM**

Waning Gibbous

On The Spot Weather

Choose Location

June 27's Reported Conditions

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

Month-to-Date

	High	Low	Precip
Month to date	**97°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

June GO!

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
222

DATE
28 Jun 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 79 °F, Max 93 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work was performed on pipe removal due to the unavailability of divers. EQ continued with site prep work and drying of dredge sediment. Analytical air sampling results were received and are being tabulated. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 222

DATE 28 Jun 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	4.0	34.0

Total hours worked to date: 2,732.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
	Total	24.0	8.0

Total operating hours to date: 554.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	6/29/5		6-29-05

Past Weather as reported at

Gary

Yesterday | hourly reports

	High	Low	Precip
Actuals	**93°F**	**79°F**	**N/A in**
Averages	**83°F**	**64°F**	--
Records	**99°F** (1971)	**49°F** (1992)	--

Sunrise: **5:17 AM**

Sunset: **8:28 PM**

Waning Gibbous

On The Spot Weather

Choose Location

Yesterday's Reported Conditions

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

Month-to-Date

	High	Low	Precip
Month to date	**97°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	—
Records	**104°F** (1988)	**41°F** (1972)	—

Averages and Records

Check daily averages for the entire month

June GO!

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IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:17:18 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.101 mg/m³
Time at maximum: 09:17:49 Jun 28
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 09:17:48 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	09:22:18	0.008

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:23:48 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.290 mg/m³
Time at maximum: 11:23:49 Jun 28
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 11:24:18 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	11:28:48	0.024

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:36:56 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:36:56 Jun 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:36:56 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	28-Jun	13:41:56	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 14:59:14 28-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:59:14 Jun 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:59:14 Jun 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jun	15:04:14	0

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13140

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 06-2805	6-28-05	13.5hr	Summa Canister	Col	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	6-28-05	850	[illegible]	6/29	850
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pickup on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7 DAY 7/8/05

Report To: Tatie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13141

Project No.: 0302414

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Cetany / Bud Peters

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: B-13 8270	TESTS: B-13 1668
Semi-Vol 062805	23.5 hr.	6-28-05	Filter	952.3 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Peters	6-29-05	810	[signature]	6/29	810
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Chain of Custody Seal Numbers

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): TODAY 7/8/05

Report To: Jackie Doan

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

Site: Indiana Harbor
PN: 030244
Date: 6 / 28 / 05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	Va 062805					06:40	06:25	23.5	6L
TO-13	Sui-Vol 062805					06:50	06:25	23.5	952.3L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: Site Ground Break Soil for SVE
Weather conditions: Sunny, Hot, Humid, Variable Light Wind
COC Number: 13140, 13141
Analytical lab: STL

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

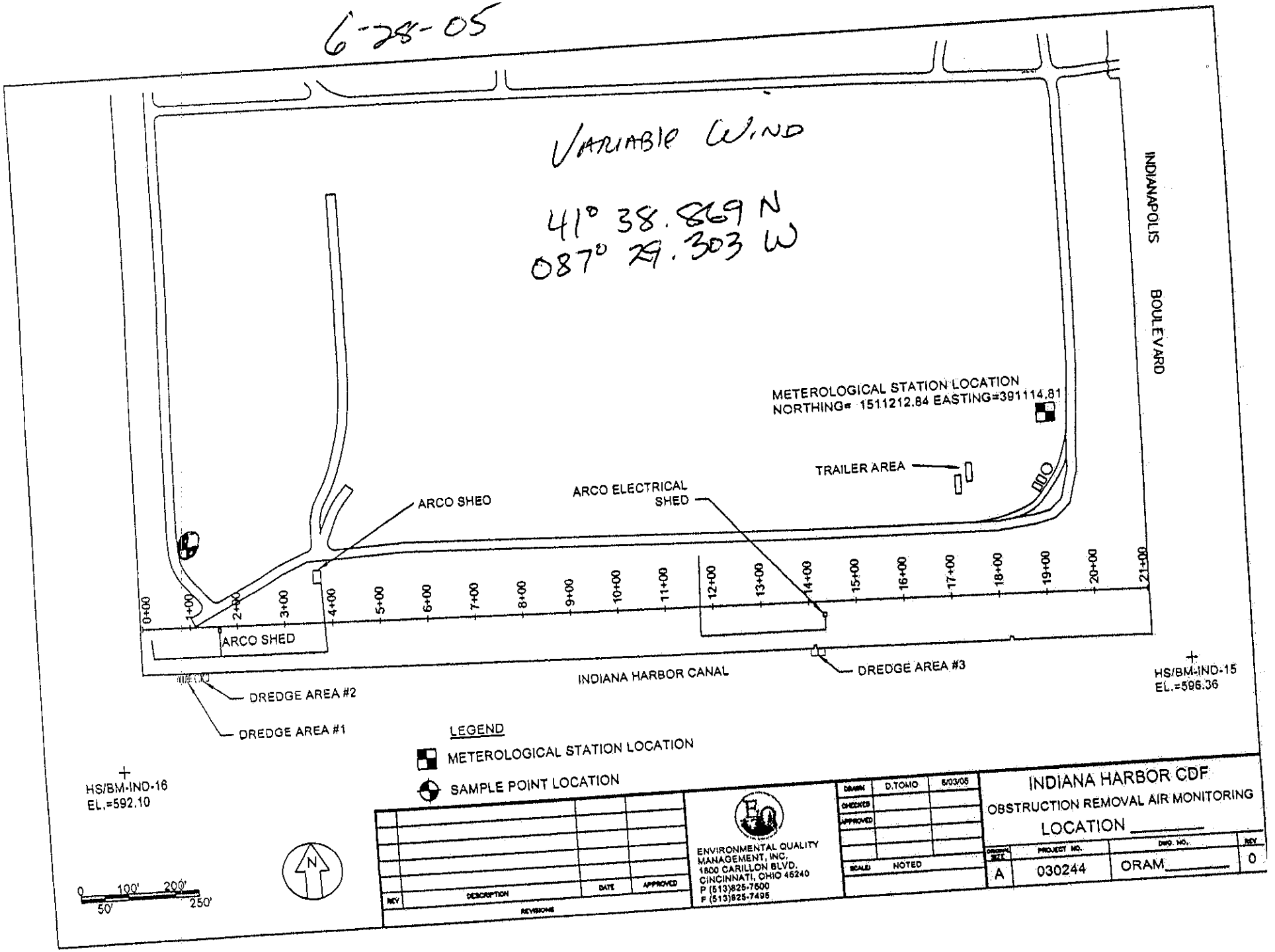
Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
067805	PDR	[illegible]	zero Calibration	"Cal OK"	Overcast, Hot, humid S-SW WIND
0752					

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.w

Page ____ of ____

6-28-05


VARIABLE WIND
41° 38.869 N
087° 29.303 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
DREDGE AREA #2
DREDGE AREA #1
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
HS/BM-IND-16
EL.=592.10
0 50' 100' 200' 250'
N
REV DESCRIPTION DATE APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
ORIGINAL SIZE A
PROJECT NO. 030244
DWG. NO. ORAM
REV 0

6-28-05

Enter city or US zip See weather related to GO

Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday | Today | Hour-by-Hour | Weekend | 10-Day | Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Haze 79°F	82°F	70°F	74%	5.0 miles	29.96	Variable 5mph
Sunrise at 5:18 AM							
5:50 AM	Haze 79°F	83°F	72°F	78%	4.0 miles	29.96 →	Variable 5mph
6:50 AM	Haze 79°F	82°F	70°F	74%	4.0 miles	29.97 ↑	From S 9mph
7:45 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	29.99 ↑	From WSW 9mph
8:45 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	29.99 →	From WSW 9mph
9:50 AM	Haze 82°F	88°F	73°F	74%	5.0 miles	29.98 ↓	From WSW 9mph
10:45 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	29.98 →	From WSW 9mph
11:50 AM	Mostly Cloudy 88°F	92°F	70°F	55%	5.0 miles	29.99 ↑	From WSW 9mph
12:50 PM	Mostly Cloudy 91°F	109°F	81°F	71%	7.0 miles	29.97 ↓	From W 9mph
1:50 PM	Mostly Cloudy 91°F	95°F	66°F	43%	7.0 miles	29.95 ↓	From W 9mph
2:50 PM	Mostly Cloudy 91°F	96°F	68°F	46%	7.0 miles	29.93 ↓	From SW 9mph
3:50 PM	Mostly Cloudy 93°F	100°F	70°F	46%	7.0 miles	29.91 ↓	From WSW 8mph

Today in East Chicago

- 4th of July Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Real-time local traffic reports

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Special Offers in East Chic

Meyer Photographic Art

4:50 PM	Cloudy 91°F	96°F	68°F	46%	10.0 miles	29.91 →	Variable 7mph
5:50 PM	Mostly Cloudy 91°F	97°F	70°F	49%	7.0 miles	29.92 ↑	From NE 9mph
6:50 PM	Mostly Cloudy 86°F	88°F	66°F	51%	10.0 miles	29.92 →	From NE 9mph
7:50 PM	Light Rain with Thunder 84°F	87°F	68°F	58%	10.0 miles	29.95 ↑	Variable 5mph

Sunset at 8:28 PM

8:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.95 →	calm

Avg. 85°

29.95

Back to previous page

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- Local Mosquito Activity Levels
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This Week's Features

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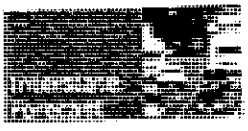
Tips to gro yard in hot weather.

Driving Weather

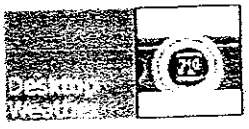


Check curr conditions

Summer Adventure

Find perfec your sumn

Desktop Weather



FREE weai on your de

Health

Weather a

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter	ug/m3 Limit	Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter	Limit	Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.052	0.480	0.150	0.082	0.160	0.050	0.092		0.000	0.061		0.000	0.056
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.086	0.020	0.015	0.100	0.023	0.020	0.042	0.010	0.022		0.000	0.011		0.000	0.010
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.193	0.710	0.188	0.230	0.250	0.066	0.244		0.000	0.084		0.000	0.075
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.058	0.370	0.085	0.075	0.139	0.032	0.081		0.000	0.041		0.000	0.037

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	ug/m3 Limit	Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	####	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	####	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	####	0.029	0.036
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	36000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	####	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5500	0.005	0.005	970.3	6000	0.006	0.005	1022.7	5900	0.005	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB170		923.5	ND	0.001	0.001	1014.0	1800	0.002	0.002	1032.8	2600	0.003	0.002	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180		923.5	1600	0.002	0.002	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001								
PCB189		923.5	ND	0.001	0.001																								
TOTAL	1000.0			0.225	0.225			0.176	0.200			0.223	0.208			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	3.63E-02	3.11E-02	986.1	17000	0.017	0.026	1018.9		0.000	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		990.7	7500	7.57E-03	6.49E-03	986.1	3700	0.004	0.006	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		990.7	40000	4.04E-02	3.25E-02	986.1	26000	0.026	0.030	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		990.7	36000	3.63E-02	3.40E-02	986.1	18000	0.018	0.029	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		990.7	36000	3.63E-02	3.26E-02	985.1	18000	0.018	0.028	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		990.7	2600	2.62E-03	2.43E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		990.7	5600	5.65E-03	5.21E-03	985.1	1900	0.002	0.004	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		990.7	2200	2.22E-03	1.99E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000																				
PCB189																													
Total	1000.0			1.73E-01	1.17E-01			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 060505																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	8000	7.748	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	1600	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414								
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616																				

Parameter	Limit	Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	1.664	994.9	620	0.623	1.789	1050.6	1200	1.142	2.017	1070.2		0.000	1.492	1054.4		0.000	0.863
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.282	994.9	ND	0.251	0.332	1050.6	ND	0.238	0.380	1070.2		0.000	0.329	1054.4		0.000	0.278
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.278	994.9	ND	0.251	0.328	1050.6	ND	0.238	0.376	1070.2		0.000	0.325	1054.4		0.000	0.275
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.123	994.9	1200	1.206	1.365	1050.6	ND	0.238	1.412	1070.2		0.000	0.867	1054.4		0.000	0.583
Flourene	1250.0	990.7	4000	4.037	3.626	986.1	3200	3.245	3.226	1018.9	3100	3.042	2.065	994.9	3400	3.417	2.749	1050.6	1300	1.237	2.986	1070.2		0.000	2.168	1054.4		0.000	1.539
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	5.453	994.9	10000	10.051	7.464	1050.6	4500	4.283	8.320	1070.2		0.000	7.048	1054.4		0.000	5.811
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8600	8.637	6.257	994.9	8300	8.343	7.926	1050.6	2900	2.760	8.478	1070.2		0.000	5.652	1054.4		0.000	3.948
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	0.782	994.9	1000	1.005	0.983	1050.6	ND	0.238	1.031	1070.2		0.000	0.708	1054.4		0.000	0.523

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 223

DATE 29 Jun 2005 - Wednesday

CONTRACT NUMBER W912P5-04-C-0006 NA

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 75 °F, Max 86 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The eastern most 14 inch pipe in area two was cut on the south end. THe north end is loose and may be removed entirely. EQ received super sacks of burned lime and continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 223

DATE 29 Jun 2005 - Wednesday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	1.0	8.0
Thatcher Engineering	DIVER PUMPER	5.0	40.0
		Total 13.0	106.0

Total hours worked to date: 2,838.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
		Total 16.0	16.0

Total operating hours to date: 570.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE | SUPERINTENDENT'S INITIALS | DATE 6/29/05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:22:31 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.996 mg/m³
Time at maximum: 09:23:01 Jun 29
Max STEL Concentration: 0.043 mg/m³
Time at max STEL: 09:23:01 Jun 29
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	09:27:31	0.085

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:25:21 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:25:21 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:25:21 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	11:30:21	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:31:22 29-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:31:22 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:31:22 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	13:36:22	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 3
Start time and date: 15:44:17 29-Jun
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:44:17 Jun 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:44:17 Jun 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jun	15:49:17	0.002

6-29-05

41° 38.869N
087° 29.303W

Variable Wind

INDIANAPOLIS BOULEVARD

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81

ARCO SHED

ARCO ELECTRICAL SHED

TRAILER AREA

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

ARCO SHED

DREDGE AREA #2

DREDGE AREA #1

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-16
EL.=592.10

HS/BM-IND-15
EL.=596.36

LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 50' 100' 200' 250'

N

REV	DESCRIPTION	DATE	APPROVED
	REVISIONS		

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM	0

Site: Indiana Harbor
PN 030244
Date: 6 / 29 / 05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	VOC 062905					06:30	06:30	24hr	6
TO-13	Semi VOC 062905					06:30	06:30	24hr	994.8
SV Field Blank	062905					:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible] Calculations by: [illegible] Checked by:

Activities performed on site: Diving 10 Cut Pipe, mix dredge spoil
Weather conditions: HOT, HUMID, variable WIND
Analytical lab: STL COC Number: EQ 13142, EQ 13143

* Filter media and today was not chilled when recieved on 6/28/05.

SAMPLING EQUIPMENT CALIBRATION LOG

Name: Indiana Harbor Obstruction Removal

Project No.: 030244

E/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
-29-05 :33	PDR	Benfeby	zero Calibration	"Cal OK"	Sunny Hot. humid Variable Wind.

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13142

No. 030244

Project Name: Indiana Harbor Obstruction Removal

ers/Affiliation: (Print Name and Sign) Ben Letang / EQM

Lab P.O. No: 9132

e ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
2L 06 2905	6-29-05	24hr.	Summa Canister	6 L	1	X

nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Letang	6-30-05	830	Dawn Fuller	6/30/05	830
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Chain of Custody Seal Numbers

orting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 7/9/05

Report To: Jackie DOAN

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13143

No. 830244

Project Name: Indiana Harbor Obstruction Removal

ers/Affiliation: (Print Name and Sign) Jim Letany / EQ

Lab P.O. No: 9132

e ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/TO-20	TESTS: TO-13/TO-68
ni Vol 062905	6-29-05	24hr	Filter	994.8L	2	x	x
Field Blank 062905	"	"	"	N/A	2	x	x

	Date	Time	Received by: (Signature)	Date	Time
nquished by: (Signature)	6/30/05	850		6/30/05	850
nquished by: (Signature)					
nquished by: (Signature)					

Ship To: STL - Pick up on Site

Airbill Number

Chain of Custody Seal Numbers

orting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 1-DAY 7/9/05

Report To: Jackie Doan

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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6-29-05

Enter city or US zip See weather related to ... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

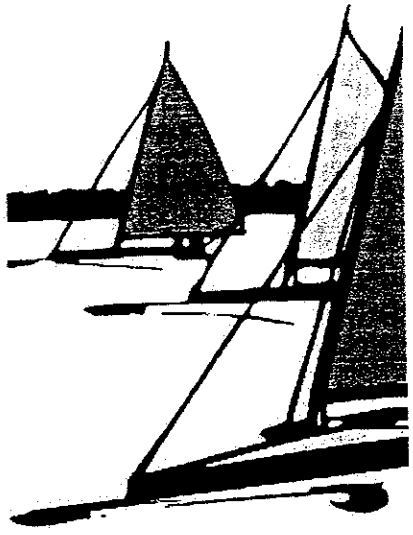
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.96	Variable 6mph
Sunrise at 5:18 AM							
5:50 AM	Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.96 →	Variable 6mph
6:50 AM	Mostly Cloudy 75°F	78°F	70°F	83%	7.0 miles	29.97 ↑	Variable 7mph
7:50 AM	Partly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.98 ↑	Variable 7mph
8:50 AM	Haze 81°F	85°F	72°F	74%	6.0 miles	29.98 →	Variable 7mph
9:50 AM	Haze 82°F	88°F	73°F	74%	5.0 miles	29.97 ↓	Variable 5mph
10:50 AM	Haze 84°F	89°F	72°F	66%	5.0 miles	29.98 ↑	From NNE 8mph
11:50 AM	Mostly Cloudy 86°F	90°F	70°F	58%	7.0 miles	29.98 →	From NE 14mph
12:50 PM	Mostly Cloudy 86°F	88°F	66°F	51%	10.0 miles	29.96 ↓	From NE 12mph
1:50 PM	Mostly Cloudy 86°F	89°F	68°F	55%	10.0 miles	29.95 ↓	From NE 17mph
2:53 PM	Mostly Cloudy 84°F	88°F	70°F	62%	10.0 miles	29.94 ↓	From NE 12mph
3:50 PM	Mostly Cloudy 86°F	90°F	70°F	58%	10.0 miles	29.93 ↓	Variable 5mph

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round-the-W
Race. http://team.abnamro.com

Sailing under one flag TEAM ABN AMRO

Special Offers in East Chica

4:50 PM	Mostly Cloudy 84°F	88°F	70°F	62%	10.0 miles	29.92 ↓	Variable 6mph
5:50 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.93 ↑	Variable 6mph
6:45 PM	Cloudy 81°F	85°F	72°F	74%	7.0 miles	29.91 ↓	Variable 5mph
7:49 PM	Haze 81°F	87°F	75°F	84%	5.0 miles	29.91 →	From NE 9mph
Sunset at 8:28 PM							
8:54 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.92 ↑	calm
9:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.91 ↓	Variable 5mph

Avg. 81°

29.95

Back to previous page

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Past Weather as reported at

Gary

June 29 hourly reports

	High	Low	Precip
Actuals	**86°F**	**75°F**	**N/A in**
Averages	**83°F**	**64°F**	--
Records	**97°F** (1964)	**55°F** (1951)	--

Sunrise: **5:18 AM**

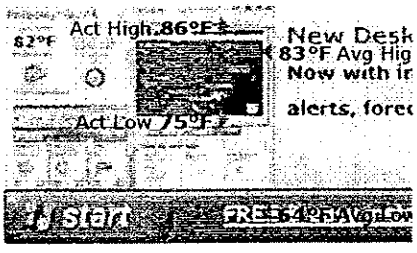
Sunset: **8:28 PM**

Waning Half, Last Quarter

On The Spot Weather

Choose Location

June 29's Reported Conditions



Today in East Chicago

55°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	**97°F**	**52°F**	**NaN in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	ug/m3 Limit	Week of 060505																																							
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	####	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	####	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	####	0.029	0.036
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	####	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5500	0.005	0.005	970.3	5000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB180		923.5	1600	0.002	0.002	1014.0	1800	0.002	0.002	1032.8	2600	0.003	0.002	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162
TOTAL	1000.0			0.225	0.225			0.176	0.200			0.223	0.208																

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	3.63E-02	3.11E-02	986.1	17000	0.017	0.026	1018.9		0.000	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		990.7	7500	7.57E-03	6.49E-03	986.1	3700	0.004	0.006	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		990.7	40000	4.04E-02	3.25E-02	986.1	26000	0.026	0.030	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		990.7	36000	3.63E-02	3.40E-02	986.1	18000	0.018	0.029	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		990.7	36000	3.63E-02	3.26E-02	986.1	18000	0.018	0.028	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		990.7	2600	2.62E-03	2.43E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		990.7	5600	5.65E-03	5.21E-03	986.1	1900	0.002	0.004	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		990.7	2200	2.22E-03	1.99E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			1.73E-01	1.17E-01			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	8600	8.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.898	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.895	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1016.9	2600	2.552	1.664	994.9	620	0.623	1.789	1050.6	1200	1.142	2.017	1070.2		0.000	1.492	1054.4		0.000	0.863
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	920	0.903	0.282	994.9	ND	0.251	0.332	1050.6	ND	0.238	0.360	1070.2		0.000	0.329	1054.4		0.000	0.278
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	900	0.883	0.278	994.9	ND	0.251	0.328	1050.6	ND	0.238	0.376	1070.2		0.000	0.325	1054.4		0.000	0.275
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1016.9	1500	1.472	1.123	994.9	1200	1.206	1.365	1050.6	ND	0.238	1.412	1070.2		0.000	0.867	1054.4		0.000	0.583
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1016.9	3100	3.042	2.065	994.9	3400	3.417	2.749	1050.6	1300	1.237	2.996	1070.2		0.000	2.188	1054.4		0.000	1.539
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1016.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1016.9	15000	14.722	5.453	994.9	10000	10.051	7.464	1050.6	4500	4.283	8.320	1070.2		0.000	7.048	1054.4		0.000	5.811
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.516	9.762	1016.9	8800	8.637	6.257	994.9	8300	8.343	7.928	1050.6	2900	2.760	8.478	1070.2		0.000	5.652	1054.4		0.000	3.948
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1016.9	1400	1.374	0.782	994.9	1000	1.005	0.983	1050.6	ND	0.238	1.031	1070.2		0.000	0.708	1054.4		0.000	0.523

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatch Ind Harbor Canal Id Comp & Eng. JOB NO: 072 DATE: 6-29-05
VIS: TEMP:

DIVER: Beaudoin B.O. 2600 Sfd by 3100 Rack: 3100

DIVE 1			DIVE 2			DIVE 3		
Depth	30'	SI	Depth	SI		Depth		
LS	08:42	NG	LS	NG		LS		
LB	12:07	RNT	LB	RNT		LB		
BT	3hr 25 min		BT			BT		
DECO			RNT +			RNT +		
RS	12:08		TBT =			TBT =		
RG			DECO			DECO		
TBL	35/310 min		RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diver Jetting and cutting pipe.

DIVER: Dan Tattini

DIVE 1			DIVE 2			DIVE 3		
Depth	30	SI	Depth	SI		Depth		
LS	1323	NG	LS	NG		LS		
LB	1438	RNT	LB	RNT		LB		
BT	75 min.		BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Start pipe to cut w air saw.
Diver Exh Valve clogged w Mat'l / Shut Down for today.

DIVER:

DIVE 1			DIVE 2			DIVE 3		
Depth		SI	Depth	SI		Depth		
LS		NG	LS	NG		LS		
LB		RNT	LB	RNT		LB		
BT			BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		

Onyx Special Services, Inc **MARINE SERVICES** Job Safety Analysis

1401598.05-072. Thatcher / corp Job.

Plant: 100 Harbor Canal	Contact: Tom S	Date: 06.29.05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin, Williams	Job Description: Pipe removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: None.	Primary Evacuation Point: Parking area.	
Secondary Evacuation Point:	Backup Emergency Communications:	
Fire Extinguisher Available:	Inspection Date:	Is Pin Intact: [ ] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):
[ ] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: [ ] Half Face Respirator: Facepiece Model #:
[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR
Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other Bailout 2600 Diver 3100 stby. 3100 on Rack.

Hearing Protection:
[ ] Ear Plugs [ ] Ear Muffs [ ] Other: N/a.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	*If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	N/a

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Jett Pump
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAR
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground/Seawall	~~tie~~ lifejack within 4' of u
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in water	Clean Diver within work Site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equip	Watch wind direction.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Carefull of ladders.	3 point Contact points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw.	Diver beware of Hose (D)iv
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	N/a.	
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).		Watch Footing.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

Jack Beaum 6-29-05			

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	N/A

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Jett Pump
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAR
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground/Seawall	life Jack within 4' of u
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in water	Clean Diver within work site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equip	Watch wind direction
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Carefull of ladders.	3 point Contact points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/A	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw.	Diver beware of Hose (Div
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	N/A.	
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards)		Watch Footing.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

Jack Beaupre 6-29-05			

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
224

DATE
30 Jun 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The second eastern most 14 inch pipe in area two was cut within about 3 inches of completeion on the south end. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started today

The following 5 activities were finished today:

Activity No	Description
0002-04-03	Recurring Utilities/Lease, Month 3
0002-06-03	Security Service, Month 3
0004-02-02	Turbidity Curtain O&M, Month 2
0017-02-02	Decontamination System Usage, Month 2
0018-02-01	Construction Emissions Air Monitoring, Month 1

QC REQUIREMENTS

No QC requirements were completed today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 224

DATE 30 Jun 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
BGM	SAFETY ENGINEER - ON SITE	1.0	10.0
BGM	SUPER - JOB	0.0	0.0
BGM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	1.0	8.0
Thatcher Engineering	DIVER PUMPER	5.0	40.0
	Total	12.0	98.0

Total hours worked to date: 2,936.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CR02136	Small Excavator	4.0	4.0
	Total	16.0	16.0

Total operating hours to date: 586.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/1/5		7/1/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:01:28 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.046 mg/m³
Time at maximum: 10:01:32 Jun 30
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 10:08:28 Jun 30
Overall Avg Conc: 0.016 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	10:06:28	0.018

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 12:38:16 30-Jun
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.068 mg/m³
Time at maximum: 12:38:17 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:38:16 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	12:43:16	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:12:41 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.166 mg/m³
Time at maximum: 14:12:42 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:12:41 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	14:17:41	0.002

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:33:49 30-Jun
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:33:49 Jun 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:33:49 Jun 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Jun	15:38:49	0

Site: INDIANA HARBOR CDF
PN 030244
Date: 6/30/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	Voc 063005					06:40	06:30	24	6L
TO-13	Semi Vol 063005					06:40	06:30	24	961.1L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Diving, mixing solvent
Weather conditions: Sunny, hot, humid. S-SW wind
Analytical lab: STL COC Number: EQ 13144, EQ 13145

6-30-05

41° 38. 869 N
087° 29. 303 W

WIND ↑ SOUTH

INDIANAPOLIS BOULEVARD

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81

TRAILER AREA

ARCO SHED

ARCO ELECTRICAL SHED

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

ARCO SHED

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-15
EL.=596.36

DREDGE AREA #2

DREDGE AREA #1

HS/BM-IND-16
EL.=592.10

LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 50' 100' 200' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: IN Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
6-30-05 0753	PDR	[illegible]	zero Calibration	"Cal OK"	Overcast, Scattered T-Storms Hot, Humid, S-WIND
6-30-05 1051	Multi-Rae	[illegible]	Fresh air + methane calibration	Calibrated	Sunny, Hot, Humid S-SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Haze 81°F	86°F	73°F	79%	6.0 miles	29.86	From SSW 12mph
Sunrise at 5:19 AM							
5:50 AM	Light Rain with Thunder 81°F	86°F	73°F	79%	3.0 miles	29.90 ↑	From W 17mph
6:50 AM	Cloudy 73°F	73°F	70°F	88%	6.0 miles	29.87 ↓	Variable 6mph
7:50 AM	Mostly Cloudy 73°F	73°F	70°F	88%	6.0 miles	29.85 ↓	From SSE 12mph
9:50 AM	Mostly Cloudy 82°F	86°F	70°F	66%	10.0 miles	29.84 ↓	From WSW 17mph
10:50 AM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.82 ↓	From S 17mph
11:50 AM	Mostly Cloudy 91°F	97°F	70°F	49%	Unlimited	29.83 ↑	From WSW 9mph
12:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.83 →	From WSW 9mph
1:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.80 ↓	From WSW 9mph
2:45 PM	Partly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.78 ↓	From SW 12mph
3:50 PM	Partly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.78 →	From WSW 12mph

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Feature Finds

monster

4:50 PM	Partly Cloudy 91°F	95°F	66°F	43%	Unlimited	29.75 ↓	From WSW 12mph
5:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	Unlimited	29.76 ↑	From WSW 12mph
6:50 PM	Partly Cloudy 88°F	90°F	66°F	49%	Unlimited	29.77 ↑	From WSW 14mph
7:50 PM	Partly Cloudy 84°F	87°F	66°F	55%	Unlimited	29.75 ↓	From WSW 12mph
Sunset at 8:28 PM							
8:50 PM	Partly Cloudy 84°F	85°F	61°F	45%	Unlimited	29.75 →	From WSW 9mph

Avg. 85° 29.80

Back to previous page

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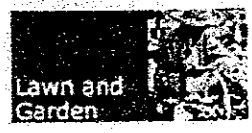
This Week's Features

Summer Lawn Care



Tips to gro yard in hot weather.

Driving Weather

Check curr conditions

Summer Adventure

Find perfec your sumn

Desktop Weather

FREE weat on your de

Health

Weather a

weather.com® Poll

Which weather conditions affe driving ability the most?

- Heavy snow
- Ice
- Dense fog
- Strong winds

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1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13144

Project No.	Project Name
0302441	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Letang / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
VOC 01-3005	6-30-05	24hr.	Summa Canister	LL	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
	7-1-05	900		7-1-05	900
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL- Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 7-DAY 7/11/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13145

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Semi-Vol 063005	6-30-05	24hr	Filter	961.1 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7/1/05	1000	[illegible]	7/1/05	900
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 7/11/05

Report To: JACKIE DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**91°F**	**73°F**	**N/A in**
Averages	**83°F**	**64°F**	--
Records	**98°F** (1970)	**53°F** (1982)	--

Sunrise: **5:18 AM**

Sunset: **8:28 PM**

Waning Crescent

On The Spot Weather

Choose Location

Yesterday's Reported Conditions

$175,000 Mortgage for Under $
Click Your State & Refinanc
AL AZ AR CA CO CT DE FL
6% 98°F Record High
NE NV NH NJ NM NY NC ND OH
SC SD TN TX UT VT VA WA WV
Less-Than-Perfect Credit
Act High 91°F
NEW: Forecast Text Message!
Act Low 73°F
Text Your City or Zi
to 4CAST (42278)
75 cents per delivered text. 64°F Avg Low
additional carrier charges and network cons

Today in East Chicago

53°F Record Low

Month-to-Date

	High	Low	Precip
Month to date	°F	°F	**0 in**
Average	**80°F**	**61°F**	--
Records	**104°F** (1988)	**41°F** (1972)	--

Averages and Records

Check daily averages for the entire month

July GO

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

Your Local Forecast brought to you by Scotts

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	ug/m3 Limit	Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	####	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	####	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	####	0.029	0.036
PCB31		923.5	48000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	####	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5500	0.005	0.005	970.3	6000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180		923.5	1600	0.002	0.002	1014.0	1800	0.002	0.002	1032.8	2600	0.003	0.002	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL	1000.0			0.225	0.225			0.176	0.200			0.223	0.208			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	3.63E-02	3.11E-02	986.1	17000	0.017	0.026	1018.9		0.000	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		990.7	7500	7.57E-03	6.49E-03	986.1	3700	0.004	0.006	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		990.7	40000	4.04E-02	3.25E-02	986.1	28000	0.028	0.030	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		990.7	36000	3.63E-02	3.40E-02	986.1	18000	0.018	0.029	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		990.7	36000	3.63E-02	3.26E-02	986.1	18000	0.018	0.028	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		990.7	2600	2.62E-03	2.43E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		990.7	5600	5.65E-03	5.21E-03	986.1	1900	0.002	0.004	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		990.7	2200	2.22E-03	1.99E-03	986.1	ND	0.001	0.002	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		990.7	ND	5.05E-04	4.96E-04	986.1	ND	0.001	0.000	1018.9		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			1.73E-01	1.17E-01			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.356	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.6	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.6	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.208

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	1.664	994.9	620	0.623	1.789	1050.6	1200	1.142	2.017	1070.2		0.000	1.492	1054.4		0.000	0.863
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.282	994.9	ND	0.251	0.332	1050.6	ND	0.238	0.380	1070.2		0.000	0.329	1054.4		0.000	0.278
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.278	994.9	ND	0.251	0.328	1050.6	ND	0.238	0.376	1070.2		0.000	0.325	1054.4		0.000	0.275
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.123	994.9	1200	1.206	1.365	1050.6	ND	0.238	1.412	1070.2		0.000	0.867	1054.4		0.000	0.583
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	2.085	994.9	3400	3.417	2.749	1050.6	1300	1.237	2.998	1070.2		0.000	2.188	1054.4		0.000	1.539
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.150	994.9	ND	0.251	0.201	1050.6	ND	0.238	0.248	1070.2		0.000	0.198	1054.4		0.000	0.147
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	5.453	994.9	10000	10.051	7.464	1050.6	4500	4.283	8.320	1070.2		0.000	7.048	1054.4		0.000	5.811
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8600	8.637	6.257	994.9	8300	8.343	7.926	1050.6	2800	2.760	8.478	1070.2		0.000	5.652	1054.4		0.000	3.948
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	0.782	994.9	1000	1.005	0.983	1050.6	ND	0.238	1.031	1070.2		0.000	0.708	1054.4		0.000	0.523

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	ug/m3	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng Pipe Removal

JOB NO: 072 DATE: 6-20-05

VIS: TEMP:

BO 3100 Rack 3000 PSI

DIVER: Villanea I Stbby 2600.

DIVE 1			DIVE 2			DIVE 3	
Depth	80	SI	Depth	SI		Depth	
LS	0847	NG	LS	NG		LS	
LB	1215	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	306 min TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	307		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Air Sawing pipe wait on T-Storms

DIVER: Jack Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	22	SI	Depth	SI		Depth	
LS	1259	NG	LS	NG		LS	
LB	1510	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	132 min TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Air Sawing pipe II 2 continued from Joe
Still Have 10 fil left to cut @ end of Dive 1

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analys**

140159.8.05-072. Thatcher / corp Job.

Plant: Ind Harbor Canal	Contact: Tom S	Date: 06.29.05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin / Villarreal	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: None.	Primary Evacuation Point: Parking area.
Secondary Evacuation Point:	Backup Emergency Communications:
Fire Extinguisher Available:	Inspection Date: Is Pin Intact: [ ] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[ ] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other: Band Out 2600 Diver 3100 stby. 3100 on Rack.

Hearing Protection:

[ ] Ear Plugs [ ] Ear Muffs [ ] Other: N/a.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	*If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	N/A

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A.
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Jett Pump.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZA
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground / Seawall	~~tie~~ Life Jack within 4' of
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in water	Clean Diver within work S
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equip	Watch wind direction
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Carefull of ladders.	3 point Contact poin
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/A	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw.	Diver beware of Hose (D
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	N/A.	
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).		Watch Footing.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

6-29-05	6-30-05		
Jack Bergen	Jimmy Tate		
Jimmy Tate	Joe Villard		
Joe Villard	[illegible]		
[illegible]	[illegible]		

Bail outs. [illegible] 2600. [illegible] Stb by 3100 PSI

Bail outs. today main out of Stb on wind SW

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
225

DATE
01 Jul 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 68 °F, Max 77 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Removal of the pipes in area two continued. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

The following 6 activities were started today:

Activity No	Description
0001-07-05	Construction Schedule - Monthly Update 5
0002-04-04	Recurring Utilities/Lease, Month 4
0002-06-04	Security Service, Month 4
0004-02-03	Turbidity Curtain O&M, Month 3
0017-02-03	Decontamination System Usage, Month 3
0018-02-02	Constructions Emissions Air Monitoring, Month 2

No activities were finished today

QC REQUIREMENTS

No QC requirements were completed today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 225

DATE 01 Jul 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F5-04-C-0006 NA

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
BQM	SAFETY ENGINEER - ON SITE		1.0	10.0
BQM	SUPER - JOB		0.0	0.0
BQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		5.0	40.0
Total hours worked to date:	3,034.0	Total	12.0	98.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 602.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/6/5		

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:47:23 01-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.073 mg/m³
Time at maximum: 09:49:03 Jul 01
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:47:23 Jul 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Jul	09:52:23	0.003

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:20:55 01-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.932 mg/m³
Time at maximum: 11:21:11 Jul 01
Max STEL Concentration: 0.011 mg/m³
Time at max STEL: 11:21:26 Jul 01
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Jul	11:25:55	0.035

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:12:03 01-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.544 mg/m³
Time at maximum: 13:12:22 Jul 01
Max STEL Concentration: 0.005 mg/m³
Time at max STEL: 13:12:33 Jul 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Jul	13:17:03	0.018

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:18:33 01-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.284 mg/m³
Time at maximum: 15:23:23 Jul 01
Max STEL Concentration: 0.012 mg/m³
Time at max STEL: 15:23:33 Jul 01
Overall Avg Conc: 0.036 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Jul	15:23:33	0.044

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-1314

Project No.: 0307411

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lafferty / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO13/820	TO13/1646
Semi-Vol 070105	7-1-05	24hr.	Filter	983.2L	2	X	X
Semi-Vol 070205	7-2-05	24hr.	"	984.2L	2	X	X
Semi-Vol 070305	7-3-05	24hr.	"	1,048L	2	X	X
Semi-Vo 070405	7-4-05	24hr.	"	1,027L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-04	0850	[signature]	7-5-04	0850
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL-Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7 DAY 7/13/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-131

Project No.: 0302141

Project Name: Toledo Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 070105	7-1-05	24hr.	Summa Canister	6L	1	X
VOC 070205	7-2-05	23hr.	"	6L	1	X
VOC 070305	7-3-05	24hr.	"	6L	1	X
VOC 070405	7-4-05	24hr.	"	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-05	0850	[signature]	7-5-05	0850
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

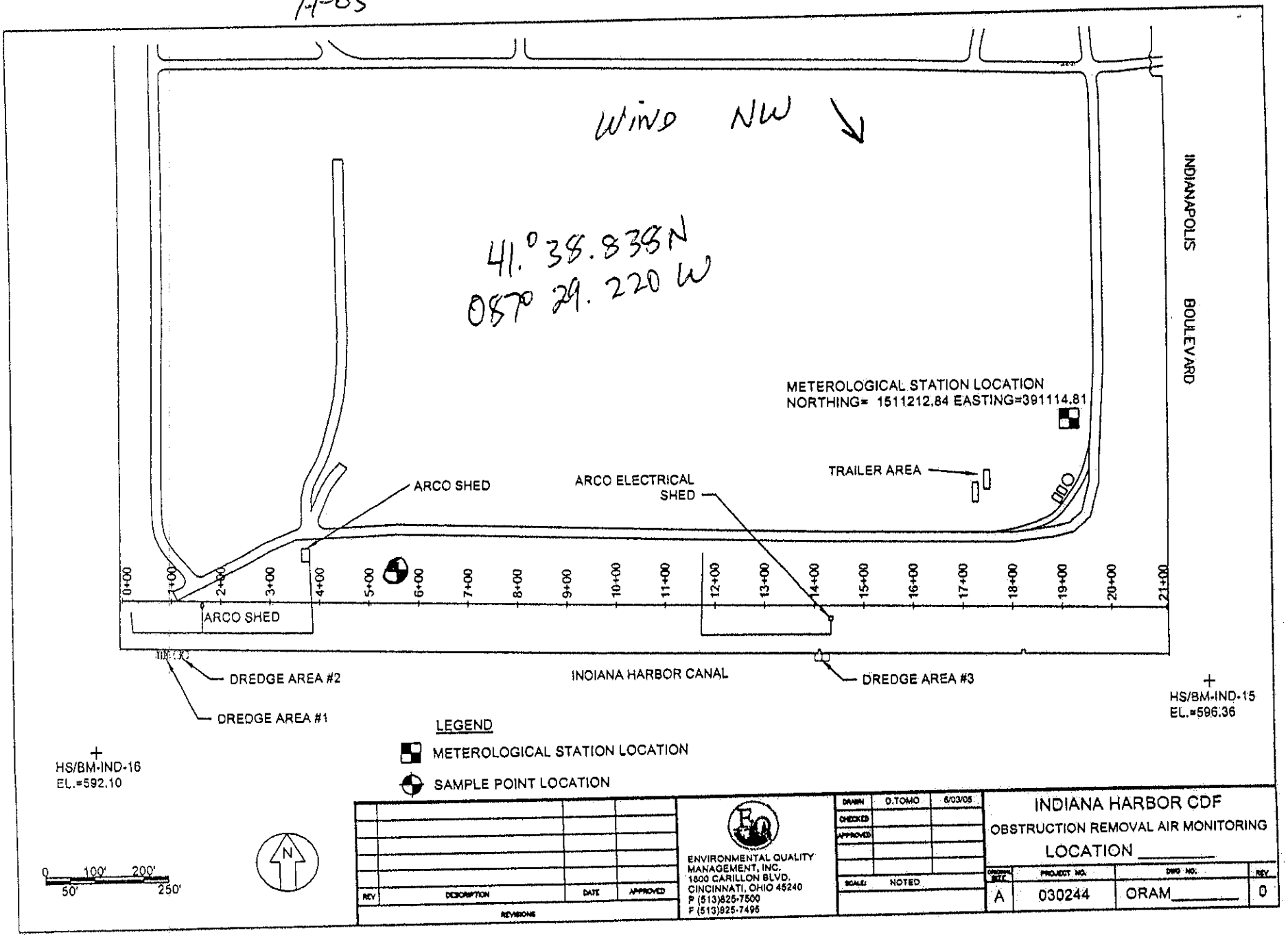
Turn Around Time (EXACT DUE DATE): 7-Day 7/13/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-1-05


WIND NW
41.° 38.838N
087° 29.220 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
ORIGINAL SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV 0

Site: Indiana Harbor
PN 030244
Date: 7/1/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC070105					06:40	06:40	24	6 L
TO-13	Semi.Vol070105					06:50	06:40	24	983.2L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: DIVING TO COT pipes
Weather conditions: Sunny, COOL, N-NW winds
Analytical lab: STL
COC Number: EQ 13146, 13147

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: TN Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-1-05 0845	PDR	[signature]	zero Calibration	"Cal OK"	Sunny, NW WIND ≈ 80°

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-1-05

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Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

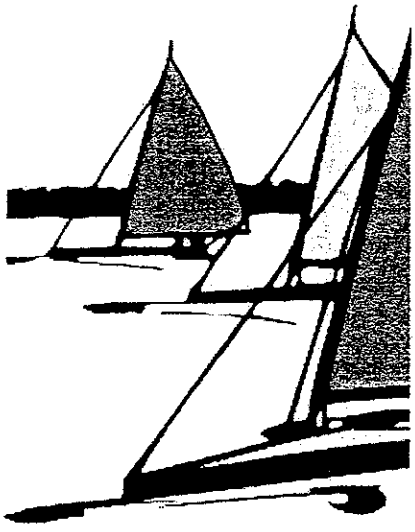
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Mostly Cloudy 73°F	73°F	61°F	65%	Unlimited	29.78	From W 12mph
	Sunrise at 5:19 AM						
5:50 AM	Mostly Cloudy 70°F	70°F	57°F	64%	Unlimited	29.79 ↑	From W 9mph
6:50 AM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	29.80 ↑	From W 9mph
7:50 AM	Partly Cloudy 73°F	73°F	55°F	53%	Unlimited	29.81 ↑	From W 12mph
8:50 AM	Partly Cloudy 73°F	73°F	55°F	53%	Unlimited	29.82 ↑	From W 9mph
9:50 AM	Partly Cloudy 75°F	75°F	55°F	50%	Unlimited	29.82 →	From W 14mph
10:50 AM	Partly Cloudy 75°F	75°F	54°F	47%	Unlimited	29.83 ↑	From W 12mph
12:50 PM	Partly Cloudy 77°F	77°F	54°F	44%	Unlimited	29.84 ↑	From W 9mph
1:45 PM	Partly Cloudy 75°F	76°F	59°F	57%	Unlimited	29.86 ↑	From NNE 9mph
2:49 PM	Mostly Cloudy 75°F	76°F	59°F	57%	Unlimited	29.86 →	From N 14mph
3:55 PM	Mostly Cloudy 72°F	72°F	59°F	64%	Unlimited	29.87 ↑	From N 14mph
	Mostly						

THE RACE TO MACKIN

STARTS JULY 16TH AT THE CHICAGO YACH



In addition to the Race to Mackinac, LaS
to be a part of the 2005-06 Round the W
Race http://team-abnamro.com

Sailing under the flag
TEAM ABN AMRO

Special Offers in East Chic

4:45 PM	Cloudy 70°F	70°F	59°F	68%	Unlimited	29.88 ↑	From N 14mph
5:47 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	29.89 ↑	From N 12mph
6:50 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	29.91 ↑	From N 12mph
7:45 PM	Mostly Cloudy 68°F	68°F	55°F	64%	Unlimited	29.92 ↑	From N 9mph
Sunset at 8:27 PM							
8:55 PM	Mostly Cloudy 68°F	68°F	57°F	68%	10.0 miles	29.93 ↑	From N 12mph
9:47 PM	Mostly Cloudy 68°F	68°F	57°F	68%	10.0 miles	29.94 ↑	From NNE 12mph

Avg 71° 29.85

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11 PM | Weekend Now

2 PM | Weekend Weather Center

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FREE weat on your de

Travel

Find your here!

Site: Indiana Harbor
PN 030244
Date: 7/4/05
Page: 1 of 1

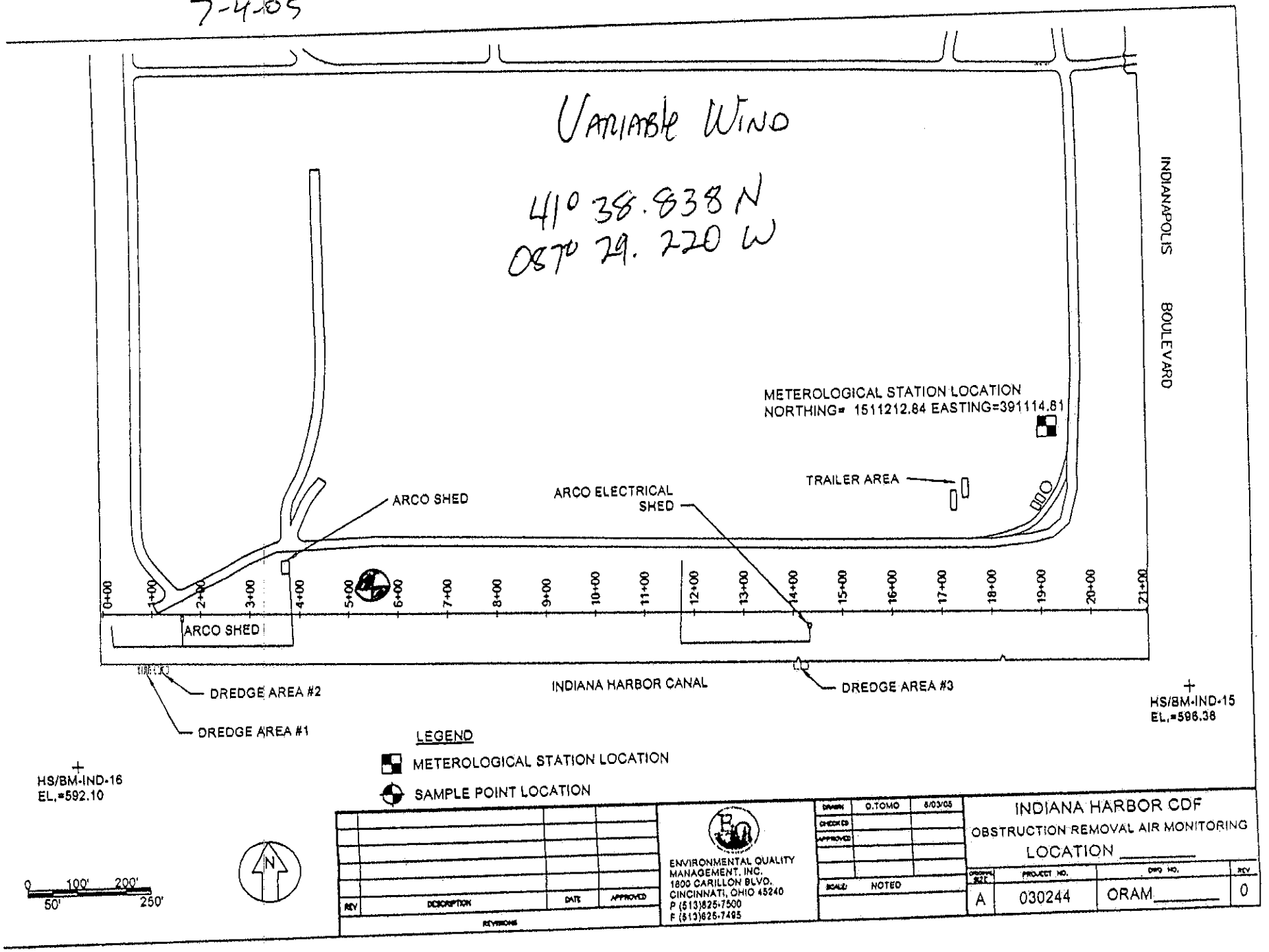
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	Vol 070405					00:00	00:00	24	6
TO-13	Semi Vol 070405					00:00	00:00	24	1,027
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by: -

Activities performed on site: N.S.A. Direct Speak on site
Weather conditions: Sunny Hot Humid
Analytical lab: STL
COC Number: 13146, 13147

7-4-05


Variable Wind
41° 38.838 N
087° 29.220 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.38
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 50' 100' 200' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7485
DRAWN
O.TOMO
5/03/05
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
ORIGINAL SIZE
A
PROJECT NO.
030244
DWG NO.
ORAM
REV
0

7-4-05

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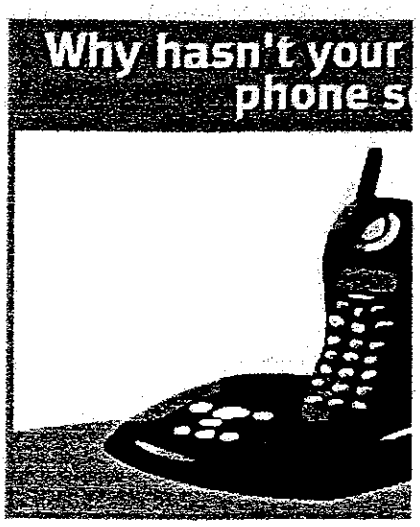
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:53 AM	Cloudy 75°F	76°F	59°F	57%	10.0 miles	29.88	From S 12mph
	Sunrise at 5:21 AM						
5:50 AM	Mostly Cloudy 75°F	76°F	59°F	57%	10.0 miles	29.87 ↓	From S 12mph
6:50 AM	Mostly Cloudy 75°F	76°F	61°F	61%	10.0 miles	29.89 ↑	From S 12mph
7:50 AM	Mostly Cloudy 77°F	78°F	64°F	65%	10.0 miles	29.89 →	From SSW 12mph
8:50 AM	Mostly Cloudy 79°F	81°F	66°F	65%	10.0 miles	29.89 →	From SSW 12mph
9:50 AM	Mostly Cloudy 82°F	86°F	68°F	62%	10.0 miles	29.89 →	From SSW 14mph
10:49 AM	Mostly Cloudy 84°F	87°F	68°F	58%	10.0 miles	29.90 ↑	From SSW 14mph
11:45 AM	Mostly Cloudy 88°F	90°F	66°F	49%	10.0 miles	29.90 →	From SSW 14mph
12:45 PM	Partly Cloudy 91°F	95°F	66°F	43%	Unlimited	29.90 →	From WSW 12mph
1:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.89 ↓	From WSW 12mph
2:50 PM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	29.93 ↑	From WNW 17mph
3:50	Mostly						From NNW



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PM	Cloudy 79°F	81°F	66°F	65%	Unlimited	29.94 ↑	9mph
4:50 PM	Cloudy 75°F	76°F	63°F	65%	Unlimited	29.92 ↓	From N 8mph
5:50 PM	Cloudy 77°F	79°F	66°F	69%	Unlimited	29.91 ↓	From N 8mph
6:50 PM	Light Rain 75°F	77°F	66°F	73%	Unlimited	29.92 ↑	calm
7:50 PM	Light Rain 72°F	72°F	68°F	88%	10.0 miles	29.94 ↑	calm
Sunset at 8:27 PM							
8:50 PM	Light Rain 73°F	73°F	70°F	88%	7.0 miles	29.96 ↑	calm
9:50 PM	Light Rain 72°F	72°F	68°F	88%	2.0 miles	29.98 ↑	From SSW 9mph

Avg. 79° 29.91

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Site: Indiana Harbor
PN 030244
Date: 7/3/05
Page: 1 of 1

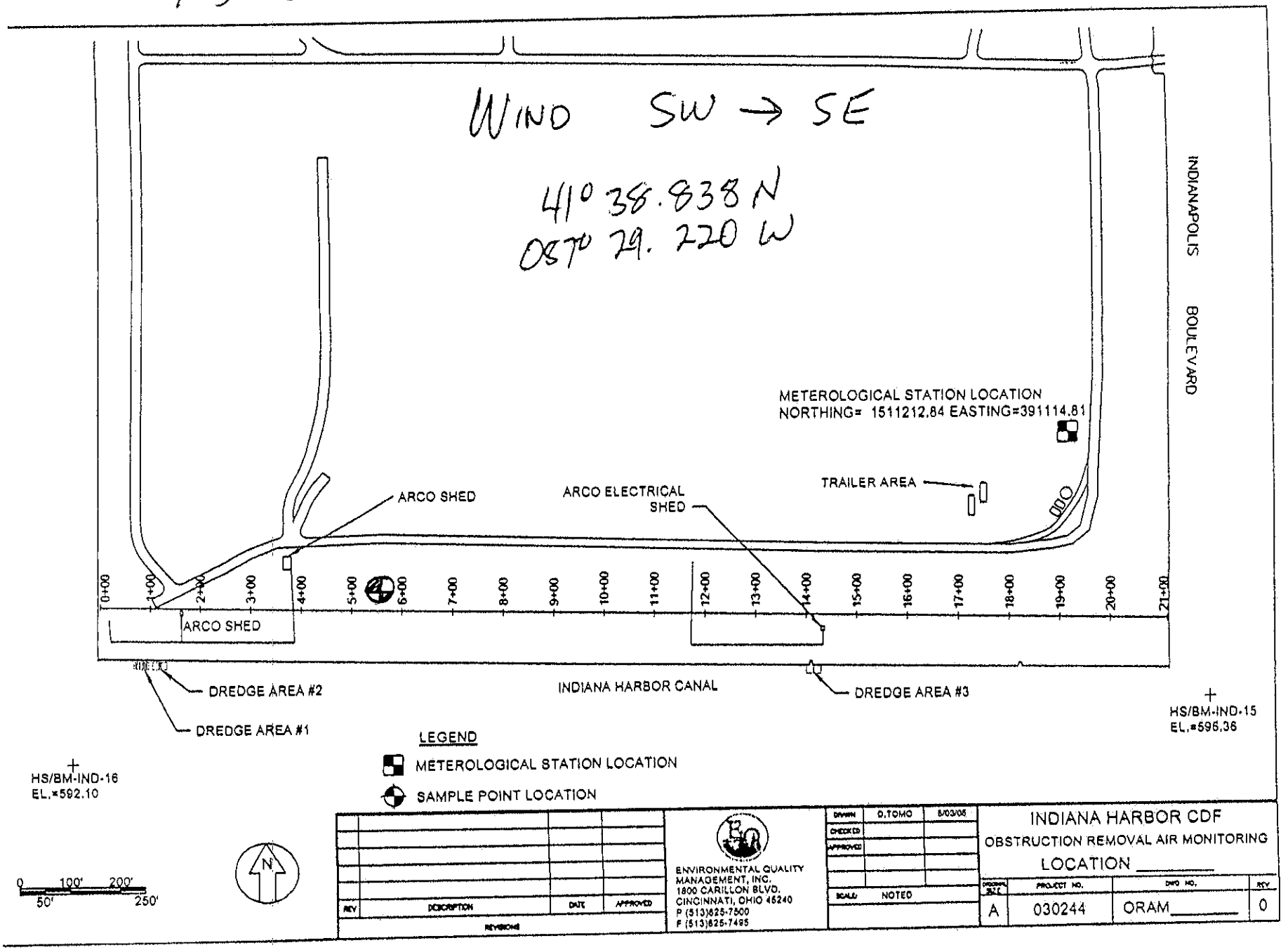
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	HC070305					06:00	06:00	24	6
TO-13	Semi-HC070305					06:00	06:00	24	1.048
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Visit ; Drum Spoil on site
Weather conditions: Sunny, Humid
Analytical lab: SA
COC Number: EQ 13146, 13147

7-3-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
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DRAWN	O.TOMO	5/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

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Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

July 3 Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Partly Cloudy 57°F	57°F	55°F	94%	10.0 miles	29.95	calm
	Sunrise at 5:21 AM						
5:50 AM	Partly Cloudy 57°F	57°F	55°F	94%	Unlimited	29.96 ↑	calm
6:50 AM	Sunny 63°F	63°F	59°F	88%	Unlimited	29.96 →	From SE 9mph
7:50 AM	Sunny 70°F	70°F	61°F	73%	Unlimited	29.96 →	From SE 9mph
8:50 AM	Partly Cloudy 73°F	73°F	61°F	65%	Unlimited	29.96 →	From SE 9mph
9:50 AM	Partly Cloudy 75°F	76°F	61°F	61%	Unlimited	29.96 →	From S 9mph
10:50 AM	Partly Cloudy 79°F	79°F	59°F	51%	Unlimited	29.95 ↓	From SW 9mph
11:50 AM	Mostly Cloudy 81°F	81°F	59°F	48%	Unlimited	29.92 ↓	From S 9mph
12:50 PM	Mostly Cloudy 82°F	83°F	59°F	45%	Unlimited	29.93 ↑	From S 9mph
1:50 PM	Mostly Cloudy 82°F	82°F	57°F	42%	Unlimited	29.92 ↓	From SSE 12mph
3:50 PM	Mostly Cloudy 86°F	85°F	54°F	33%	Unlimited	29.89 ↓	From SSW 9mph
4:46	Mostly Cloudy	85°F	54°F	33%	Unlimited	29.89 →	From SSW

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PM	86°F						9mph
5:50 PM	Mostly Cloudy 86°F	85°F	54°F	33%	Unlimited	29.86 ↓	From SSW 9mph
6:46 PM	Mostly Cloudy 84°F	84°F	55°F	37%	Unlimited	29.86 →	From S 9mph
7:48 PM	Mostly Cloudy 82°F	82°F	57°F	42%	Unlimited	29.86 →	From S 9mph
Sunset at 8:27 PM							
8:50 PM	Partly Cloudy 75°F	76°F	61°F	61%	Unlimited	29.89 ↑	From S 7mph
9:45 PM	Partly Cloudy 75°F	76°F	63°F	65%	Unlimited	29.89 →	From S 7mph

Avg. 76° 29.91

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Check curr conditions

Summer Adventure

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Health

Weather a

Past Weather as reported at Gary

July 1 hourly reports

	High	Low	Precip
Actuals	**77°F**	**68°F**	**N/A in**
Averages	**83°F**	**64°F**	--
Records	**100°F** (1956)	**52°F** (1982)	--

Sunrise: **5:19 AM**

Sunset: **8:28 PM**

Waning Crescent

On The Spot Weather

Choose Location

July 1's Reported Conditions

Month-to-Date

	High	Low	Precip
Month to date	**97°F**	**52°F**	**NaN in**
Average	**84°F**	**66°F**	--
Records	**102°F** (1991)	**51°F** (1975)	--

Averages and Records

Check daily averages for the entire month

July GO!

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SAMPLING DATA SHEET

Site: Indiana Harbor
PN 030244
Date: 7/2/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	VOC070205					06:50	06:00	23	6
TO-13	Semi-VOC070205					06:50	06:00	23	984.2
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

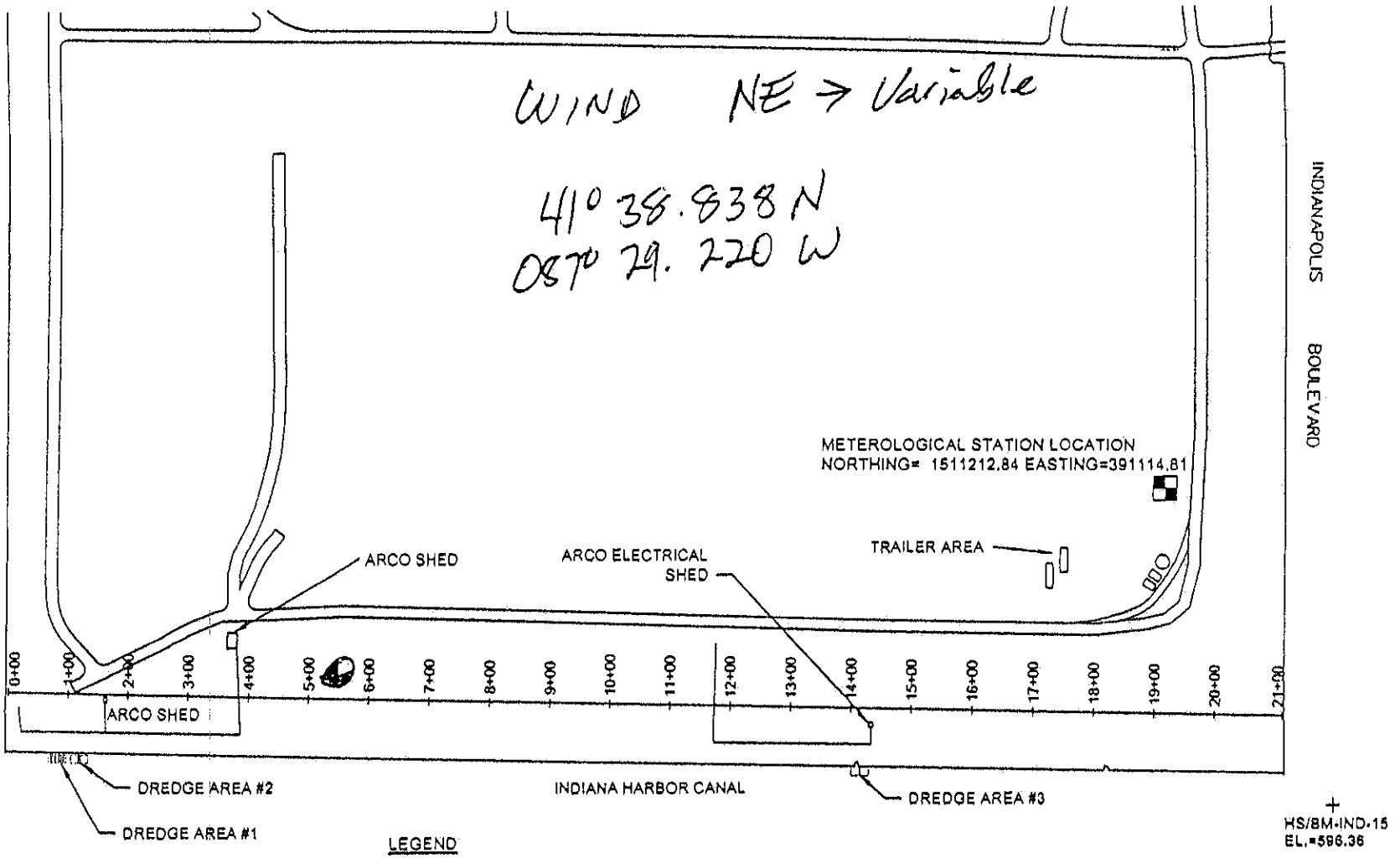
Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: N.S.A. ; Dredge Spoil on site
Weather conditions: Sunny Cooler
Analytical lab: STL
COC Number: BQ 13146, 13147

7-2-05

WIND NE → Variable

41° 38.838 N
087° 29.220 W



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

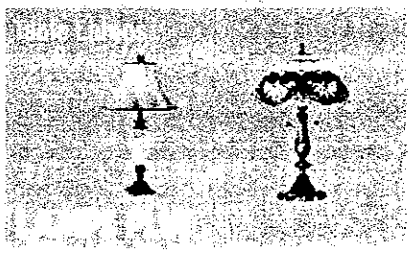
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

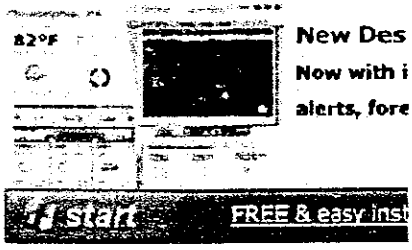
DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

Yesterday's Hourly Conditions as reported at Gary

July 2 Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:45 AM	Partly Cloudy 59°F	59°F	54°F	82%	Unlimited	29.96	calm
	Sunrise at 5:20 AM						
5:50 AM	Partly Cloudy 57°F	57°F	52°F	82%	Unlimited	29.98 ↑	Variable 6mph
6:50 AM	Partly Cloudy 61°F	61°F	52°F	72%	Unlimited	30.01 ↗	Variable 6mph
7:50 AM	Partly Cloudy 63°F	63°F	50°F	63%	Unlimited	30.03 ↑	Variable 6mph
8:45 AM	Partly Cloudy 66°F	66°F	50°F	56%	Unlimited	30.03 →	Variable 6mph
9:50 AM	Partly Cloudy 68°F	68°F	52°F	56%	Unlimited	30.01 ↓	From NNE 9mph
10:50 AM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.01 ↘	Variable 7mph
11:50 AM	Partly Cloudy 70°F	70°F	54°F	56%	Unlimited	30.01 ↘	Variable 7mph
12:50 PM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.01 ↓	From N 12mph
1:45 PM	Partly Cloudy 72°F	72°F	55°F	57%	Unlimited	30.00 ↓	From N 14mph
2:50 PM	Partly Cloudy 73°F	73°F	57°F	57%	Unlimited	29.99 ↓	From N 14mph
	Partly						





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3:50 PM	Cloudy 73°F	73°F	57°F	57%	Unlimited	29.98 ↓	From NNE 14mph
4:50 PM	Partly Cloudy 72°F	72°F	57°F	60%	Unlimited	29.97 ↓	From NNE 9mph
5:47 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	29.96 ↓	From NNE 9mph
6:50 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	29.95 ↓	From NNE 9mph
7:50 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	29.94 ↓	From NNE 7mph
Sunset at 8:27 PM							
8:47 PM	Partly Cloudy 70°F	70°F	61°F	73%	Unlimited	29.94 →	From NNE 7mph
9:50 PM	Partly Cloudy 66°F	66°F	59°F	78%	Unlimited	29.96 ↑	From ENE 9mph

Avg. 67 29.98

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 060605

Parameter	ug/m3 Limit	6/6/2005 Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	6/7/2006 Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	6/8/2005 Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5600	0.005	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB180		923.5	1600	0.002	0.002	1014.0	1600	0.002	0.002	1032.8	2600	0.003	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
TOTAL	1000.0			0.325	0.226			0.175	0.200			0.223	0.208

Parameter	6/9/2005 Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	6/10/2005 Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	6/11/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/12/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	24000	0.023	0.034
PCB 15	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	27000	0.026	0.035
PCB28	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	30000	0.029	0.036
PCB31	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	27000	0.026	0.035
PCB77	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118	970.3	6000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Week of 6/13/2005

Parameter	Limit	6/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.028
PCB 15		990.7	7500	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.039
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024
PCB31		990.7	35000	0.035	0.033	986.1	18000	0.018	0.026	1018.9	8000	0.008	0.025
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB118		990.7	5600	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035

Parameter	6/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/17/2006 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	994.9	28000	0.028	0.029	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15	994.9	4900	0.005	0.006	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18	994.9	35000	0.035	0.040	1050.6	4500	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28	994.9	22000	0.022	0.026	1050.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31	994.9	23000	0.023	0.027	1050.6	2900	0.003	0.016	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB189	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
Total			0.000	0.036			0.000	0.035			0.000	0.000			0.000	0.000

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	68000	0.067	0.031	1005.4	31000	0.031	0.032	1056.7	0	0.000	0.018
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7		0.000	0.004
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7		0.000	0.031
PCB28		1010.0	46000	0.046	0.025	1005.4	22000	0.022	0.026	1056.7		0.000	0.013
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7		0.000	0.017
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7		0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7		0.000	0.001
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7		0.000	0.000
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059

Parameter	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1001.7	0	0.000	0.018	1009.2	0	0.000	0.016	951.3		0.000	0.006	1011.5		0.000	0.000
PCB 15	1001.7		0.000	0.004	1009.2		0.000	0.004	951.3		0.000	0.001	1011.5		0.000	0.000
PCB18	1001.7		0.000	0.031	1009.2		0.000	0.031	951.3		0.000	0.010	1011.5		0.000	0.000
PCB28	1001.7		0.000	0.013	1009.2		0.000	0.013	951.3		0.000	0.004	1011.5		0.000	0.000
PCB31	1001.7		0.000	0.017	1009.2		0.000	0.017	951.3		0.000	0.006	1011.5		0.000	0.000
PCB77	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB81	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB105	1001.7		0.000	0.001	1009.2		0.000	0.001	951.3		0.000	0.000	1011.5		0.000	0.000
PCB114	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB118	1001.7		0.000	0.001	1009.2		0.000	0.001	951.3		0.000	0.001	1011.5		0.000	0.000
PCB123	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB126	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB156	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB157	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB167	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB169	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB170	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB180	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB189	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
Total			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40|0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.108	0.480	0.150	0.120	0.160	0.050	0.092	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565|0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.024	0.100	0.023	0.025	0.042	0.010	0.022	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065|0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.263	0.710	0.188	0.278	0.250	0.066	0.244	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510|0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.097	0.370	0.085	0.101	0.139	0.032	0.081	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186		0.000	0.095		0.000	0.028		0.000	0.028		0.000	0.028		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.120	0.028	0.039		0.000	0.016		0.000	0.006		0.000	0.006		0.000	0.006		0.000	0.000		0.000	0.000
Toluene	9065.0	0.920	0.244	0.306		0.000	0.133		0.000	0.049		0.000	0.049		0.000	0.049		0.000	0.000		0.000	0.000
Xylene	62510.0	0.460	0.106	0.154		0.000	0.066		0.000	0.021		0.000	0.021		0.000	0.021		0.000	0.000		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Parameter	Limit	Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	8.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.898	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	26000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.825	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.856	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.208

Parameter	Limit	Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	5.351	994.9	620	0.623	3.420	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.553	994.9	ND	0.251	0.379	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	1.707	994.9	ND	0.251	0.580	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.887	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.309	994.9	ND	0.251	0.312	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.308
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.446	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.442	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	1200	1.206	2.029	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.974	994.9	3400	3.417	4.171	1050.6	1300	1.237	2.998	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.228	1018.9	3100	3.042	5.730	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	10000	10.051	13.913	1050.6	4600	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.890
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	14.332	994.9	8300	8.343	14.944	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.786
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8800	8.637	18.079	994.9	1000	1.005	1.552	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.888	1054.4	3000	2.845	1.270
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.529	994.9															

Parameter	Limit	Week of																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	8.416	1005.4	9100	9.051	8.102	1056.7		0.000	4.186	1001.7		0.000	4.186	1009.2		0.000	4.186	951.3		0.000	1.810	1011.5		0.000	0.000
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7		0.000	2.397	1001.7		0.000	2.397	1009.2		0.000	2.397	951.3		0.000	0.219	1011.5		0.000	0.000
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7		0.000	0.278	1001.7		0.000	0.278	1009.2		0.000	0.278	951.3		0.000	0.109	1011.5		0.000	0.000
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7		0.000	1.349	1001.7		0.000	1.349	1009.2		0.000	1.349	951.3		0.000	0.637	1011.5		0.000	0.000
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.398	1056.7		0.000	4.483	1001.7		0.000	4.483	1009.2		0.000	4.483	951.3		0.000	1.711	1011.5		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7		0.000	9.325	1001.7		0.000	9.325	1009.2		0.000	9.325	951.3		0.000	3.979	1011.5		0.000	0.000
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7		0.000	9.721	1001.7		0.000	9.721	1009.2		0.000	9.721	951.3		0.000	0.418	1011.5		0.000	0.000
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7		0.000	0.952	1001.7		0.000	0.952	1009.2		0.000	0.952	951.3		0.000		1011.5		0.000	0.000

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng (Corp) JOB NO: DATE:
VIS: TEMP:

B.O PSI 2600

DIVER: Tattini

DIVE 1			DIVE 2			DIVE 3	
Depth	22	SI	Depth	22	SI	Depth	
LS	0800	NG	LS	10:17	NG	LS	
LB	09:43	RNT	LB	11:30	RNT	LB	
BT	103 min.		BT	73 min		BT	
DECO			RNT +			RNT +	
RS			TBT =	TBT		TBT =	
RG			DECO			DECO	
TBL			RS	176 min.		RS	
			RG			RG	
			TBL			TBL	

REMARKS: Complete cut on #2 pipe / Diver up to piss.

Bo 3100

DIVER: Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	22'	SI	Depth		SI	Depth	
LS	12:17	NG	LS		NG	LS	
LB	14:37	RNT	LB		RNT	LB	
BT	140 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver In water to cut #5 Pipe
Completed pipe cut #4 and removed.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL				

Onyx Special Services, Inc **MARINE SERVICES** Job Safety A

1401598.05-072. Thatcher / corp Job.

Plant: Ind Harbor Canal	Contact: Tom S	Date: 06.29.05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin, Villarral	Job Description: Pipe removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: None.	Primary Evacuation Point: Parking area.
Secondary Evacuation Point:	Backup Emergency Communications:
Fire Extinguisher Available:	Inspection Date: Is Pin Intact: [ ] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):
[ ] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: [ ] Half Face Respirator: Facepiece Model #:
[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other Bailout 2600 Diver 3100 standby 3100 on Rack.

Hearing Protection:
[ ] Ear Plugs [ ] Ear Muffs [ ] Other: N/a

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	N/A

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A.
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Jett Pump
- [ ] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground/Seawall	~~tie~~ Life Jack within 4' of we
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in water.	Clean Diver within work Site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equip	Watch Wind direction.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Carefull of ladders.	3 point Contact points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/A	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw.	Diver beware of Hose (Divi
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	N/A.	
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).		Watch Footing.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

6-29-05	6-30-05	7-1-05	
Jack Bogaski	Connie Watts	Jack Bogaski	
Connie Watts	Joe F Villard	Connie Watts	
Joe F Villard	[illegible]	Joe F Villard	
[illegible]	[illegible]	[illegible]	

Bail outs. Bu main 2600. ...ting 3100PSI

Bail outs. today main out of SW on Lwin SW

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 229

DATE 05 Jul 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 70 °F, Max 82 °F; 0.3 IN Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Removal of the pipes in area two continued. Two pipe sections were removed. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident. 0.3 inches of rain was recorded over the weekend. It is believed to have occurred the evening of 070405.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 229

DATE 05 Jul 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		5.0	40.0
Total hours worked to date:	3,132.0	Total	12.0	98.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 618.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/6/5		6-6-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:57:35 05-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:57:35 Jul 05
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:57:35 Jul 05
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Jul	10:02:35	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:32:26 05-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.355 mg/m³
Time at maximum: 11:32:27 Jul 05
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:32:26 Jul 05
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Jul	11:37:26	0.003

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:29:18 05-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.047 mg/m³
Time at maximum: 13:32:20 Jul 05
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:29:18 Jul 05
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Jul	13:34:18	0.003

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:45:20 05-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 5.412 mg/m³
Time at maximum: 15:50:57 Jul 05
Max STEL Concentration: 0.067 mg/m³
Time at max STEL: 15:51:20 Jul 05
Overall Avg Conc: 0.176 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	5-Jul	15:50:20	0

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13148**

Project No.	Project Name
0300114	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Letang / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
1/a 070505	7-5-05	23.5hr.	Sump Cavity	6L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	7-6-05	9:45	[signature]	7-6-05	9:45
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (*EXACT DUE DATE*): 7-Day 7/14/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13149

Project No.: C30244

Project Name: Indiana Harbor Construction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO13/8270	TO13/1668
Semi-Vol 070505	7-5-05	23.5hr	Filter	1,009.8L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-6-05	8hr	[signature]	7-6-05	8hr
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

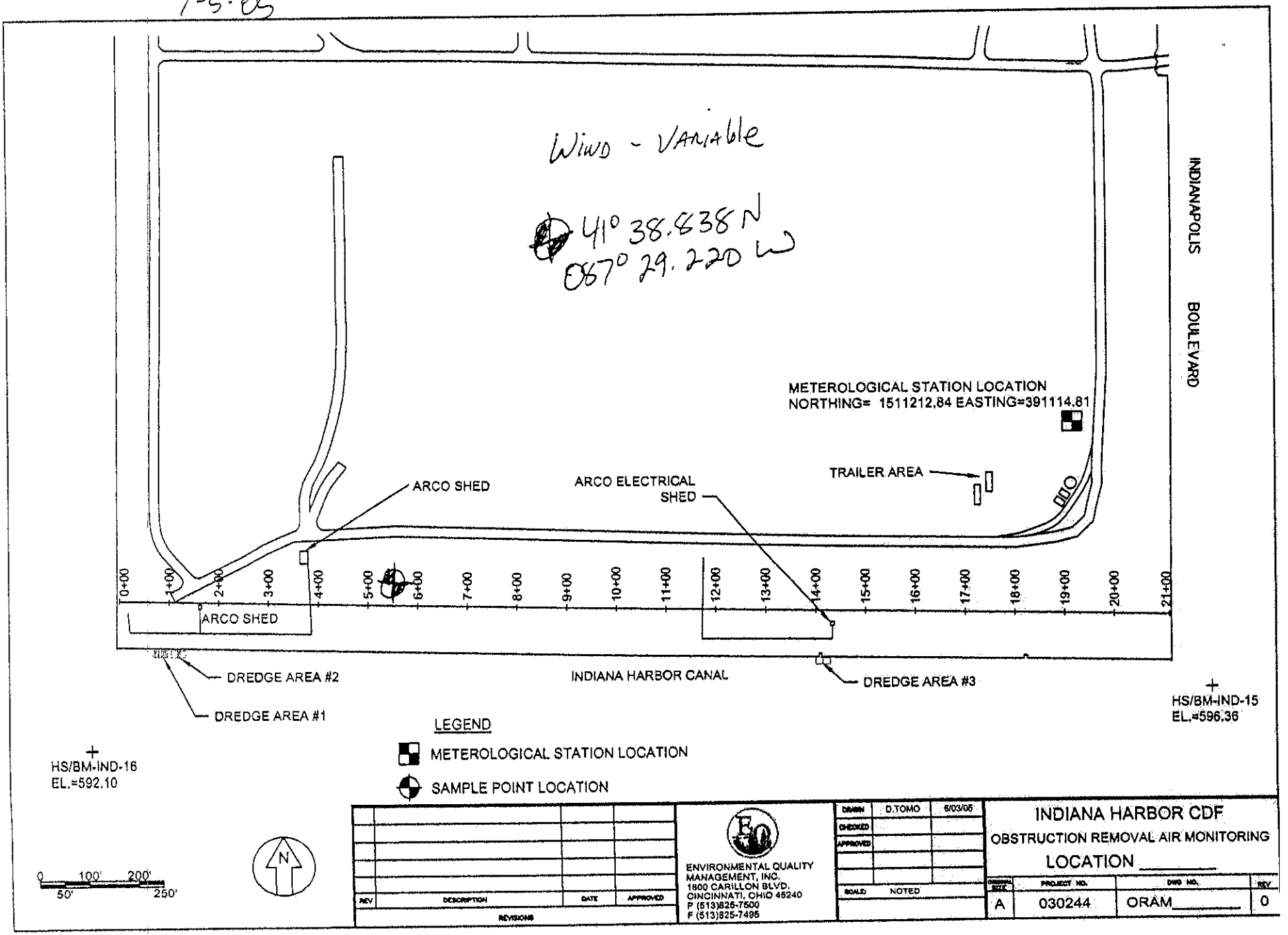
Turn Around Time (EXACT DUE DATE): 7 DAY 7/14/05

Report To: Jackie Dann

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-5-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE: NOTED		

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-5-05 0820	PDR	[illegible]	zero Calibration	"Cal OK"	Sunny, Hot W-SW wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site: Indiana Harbor
PN 030244
Date: 7/5/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Va070505					06:50	06:20	23.5	6
TO-13	Sail b070505					06:5	06:20	23.5	1,609.8
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible] Calculations by: [illegible] Checked by:

Activities performed on site: Divide TO-15 bags in area #2
Weather conditions: Sunny, warm, variable wind
Analytical lab: STL COC Number: EQ 13148, 13149

7-5-05

Enter city or US zip See weather related to ... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Cindy Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday · Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:55 AM	Fog 70°F	70°F	68°F	94%	2.5 miles	29.94	Variable 7mph
	Sunrise at 5:22 AM						
5:50 AM	Fog 70°F	70°F	68°F	94%	2.5 miles	29.94 →	Variable 7mph
6:50 AM	Partly Cloudy 70°F	70°F	68°F	94%	5.0 miles	29.96 ↑	Variable 7mph
7:50 AM	Mostly Cloudy 72°F	72°F	66°F	83%	10.0 miles	29.97 ↑	Variable 7mph
8:50 AM	Partly Cloudy 75°F	77°F	68°F	78%	Unlimited	29.97 →	Variable 7mph
9:45 AM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	29.97 →	Variable 7mph
10:50 AM	Mostly Cloudy 81°F	81°F	61°F	51%	Unlimited	29.97 →	From W 12mph
11:45 AM	Mostly Cloudy 82°F	83°F	59°F	45%	Unlimited	29.98 ↑	From W 9mph
12:50 PM	Mostly Cloudy 82°F	84°F	63°F	51%	Unlimited	29.98 →	From NNE 9mph
1:50 PM	Mostly Cloudy 81°F	81°F	61°F	51%	Unlimited	29.98 →	From NNE 14mph
2:50 PM	Mostly Cloudy 82°F	84°F	63°F	51%	Unlimited	29.98 →	From NE 14mph

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- Lawn & garden planting tips
- Scenic drive ideas
- Real-time local traffic reports

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Special Offers in East Chic

3:50 PM	Mostly Cloudy 82°F	83°F	61°F	48%	Unlimited	29.97 ↓	From NE 14mph
4:50 PM	Cloudy 81°F	81°F	61°F	51%	Unlimited	29.97 →	From NE 14mph
5:50 PM	Cloudy 75°F	78°F	70°F	83%	Unlimited	29.98 ↑	From NNE 12mph
6:50 PM	Cloudy 73°F	73°F	70°F	88%	7.0 miles	30.00 ↑	From NNE 14mph
7:50 PM	Cloudy 73°F	73°F	68°F	83%	Unlimited	30.01 ↑	From NNE 6mph
Sunset at 8:27 PM							
8:50 PM	Cloudy 72°F	72°F	68°F	88%	10.0 miles	30.01 →	Variable 7mph
9:50 PM	Cloudy 70°F	70°F	66°F	88%	10.0 miles	30.02 ↑	From NNE 12mph

Avg. 76°

29.98

Back to previous page

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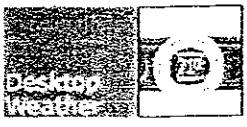

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Health

Weather a

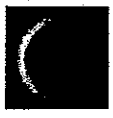
Past Weather as reported at

hourly reports

	High	Low	Precip
Actuals	**82°F**	**70°F**	**N/A in**
Averages	**84°F**	**65°F**	--
Records	**100°F** (1990)	**52°F** (1972)	--

Sunrise:
5:21 AM

Sunset:
8:27 PM



Waning Crescent

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**57°F**	**NaN in**
Average	**84°F**	**66°F**	--
Records	**102°F** (1991)	**51°F** (1975)	--

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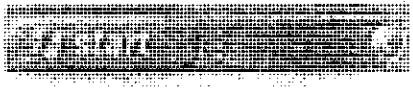

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 060605

Parameter	ug/m3 Limit	6/6/2005 Sample Volume (liters)	6/6/2005 pg Raw Data	6/6/2005 ug/m3 Calc. Data	6/6/2005 5-Day Average	6/7/2005 Sample Volume (liters)	6/7/2005 pg Raw Data	6/7/2005 ug/m3 Calc. Data	6/7/2005 5-Day Average	6/8/2005 Sample Volume (liters)	6/8/2005 pg Raw Data	6/8/2005 ug/m3 Calc. Data	6/8/2005 5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051
PCB 15		923.5	9100	0.010	0.010	1014.0	7500	0.007	0.009	1032.8	9900	0.010	0.009
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.035	0.048	1032.8	54000	0.052	0.049
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB105		923.5	1800	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5500	0.005	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
PCB180		923.5	1600	0.002	0.002	1014.0	1600	0.002	0.002	1032.8	2600	0.003	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001
TOTAL	1000.0			0.225	0.226			0.176	0.200			0.223	0.208

Parameter	6/9/2005 Sample Volume (liters)	6/9/2005 pg Raw Data	6/9/2005 ug/m3 Calc. Data	6/9/2005 5-Day Average	6/10/2005 Sample Volume (liters)	6/10/2005 pg Raw Data	6/10/2005 ug/m3 Calc. Data	6/10/2005 5-Day Average	6/11/2005 Sample Volume (liters)	6/11/2005 pg Raw Data	6/11/2005 ppb Calc. Data	6/11/2005 5-Day Average	6/12/2005 Sample Volume (liters)	6/12/2005 pg Raw Data	6/12/2005 ppb Calc. Data	6/12/2005 5-Day Average
PCB 8	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	24000	0.023	0.034
PCB 15	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	27000	0.026	0.035
PCB28	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	30000	0.029	0.036
PCB31	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	27000	0.026	0.035
PCB77	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118	970.3	6000	0.006	0.005	1022.7	5900	0.005	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Week of 6/13/2005

Parameter	Limit	6/13/2005 Sample Volume (liters)	6/13/2005 pg Raw Data	6/13/2005 ppb Calc. Data	6/13/2005 5-Day Average	6/14/2005 Sample Volume (liters)	6/14/2005 pg Raw Data	6/14/2005 ppb Calc. Data	6/14/2005 5-Day Average	6/15/2005 Sample Volume (liters)	6/15/2005 pg Raw Data	6/15/2005 ppb Calc. Data	6/15/2005 5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.028
PCB 15		990.7	7500	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.039
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	9000	0.009	0.024
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.028	1018.9	8000	0.008	0.025
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB118		990.7	5500	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035

Parameter	6/16/2005 Sample Volume (liters)	6/16/2005 pg Raw Data	6/16/2005 ppb Calc. Data	6/16/2005 5-Day Average	6/17/2005 Sample Volume (liters)	6/17/2005 pg Raw Data	6/17/2005 ppb Calc. Data	6/17/2005 5-Day Average	6/18/2005 Sample Volume (liters)	6/18/2005 pg Raw Data	6/18/2005 ppb Calc. Data	6/18/2005 5-Day Average	6/19/2005 Sample Volume (liters)	6/19/2005 pg Raw Data	6/19/2005 ppb Calc. Data	6/19/2005 5-Day Average
PCB 8	994.9	28000	0.028	0.029	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15	994.9	4900	0.005	0.005	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18	994.9	35000	0.035	0.040	1050.6	4500	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28	994.9	22000	0.022	0.026	1050.6	3300	0.003	0.019	1070.2	16000	0.015	0.013	1054.4	45000	0.044	0.018
PCB31	994.9	23000	0.023	0.027	1050.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total			0.000	0.036			0.000	0.035			0.000	0.000			0.000	0.000

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	6/20/2005 pg Raw Data	6/20/2005 ppb Calc. Data	6/20/2005 5-Day Average	6/21/2005 Sample Volume (liters)	6/21/2005 pg Raw Data	6/21/2005 ppb Calc. Data	6/21/2005 5-Day Average	6/22/2005 Sample Volume (liters)	6/22/2005 pg Raw Data	6/22/2005 ppb Calc. Data	6/22/2005 5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	0	0.000	0.018
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7		0.000	0.004
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7		0.000	0.031
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7		0.000	0.013
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7		0.000	0.017
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7		0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2900	0.003	0.003	1056.7		0.000	0.001
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7		0.000	0.000
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7		0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059

Parameter	6/23/2005 Sample Volume (liters)	6/23/2005 pg Raw Data	6/23/2005 ppb Calc. Data	6/23/2005 5-Day Average	6/24/2005 Sample Volume (liters)	6/24/2005 pg Raw Data	6/24/2005 ppb Calc. Data	6/24/2005 5-Day Average	6/25/2005 Sample Volume (liters)	6/25/2005 pg Raw Data	6/25/2005 ppb Calc. Data	6/25/2005 5-Day Average	6/26/2005 Sample Volume (liters)	6/26/2005 pg Raw Data	6/26/2005 ppb Calc. Data	6/26/2005 5-Day Average
PCB 8	1001.7	0	0.000	0.018	1009.2	0	0.000	0.018	951.3		0.000	0.006	1011.5		0.000	0.000
PCB 15	1001.7		0.000	0.004	1009.2		0.000	0.004	951.3		0.000	0.001	1011.5		0.000	0.000
PCB18	1001.7		0.000	0.031	1009.2		0.000	0.031	951.3		0.000	0.010	1011.5		0.000	0.000
PCB28	1001.7		0.000	0.013	1009.2		0.000	0.013	951.3		0.000	0.004	1011.5		0.000	0.000
PCB31	1001.7		0.000	0.017	1009.2		0.000	0.017	951.3		0.000	0.006	1011.5		0.000	0.000
PCB77	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB81	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB105	1001.7		0.000	0.001	1009.2		0.000	0.001	951.3		0.000	0.000	1011.5		0.000	0.000
PCB114	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB118	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB123	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB126	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB156	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB157	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB167	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB169	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB170	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB180	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB189	1001.7		0.000	0.000	1009.2		0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
Total			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.108	0.480	0.150	0.120	0.160	0.050	0.092	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.024	0.100	0.023	0.025	0.042	0.010	0.022	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.263	0.710	0.188	0.278	0.250	0.066	0.244	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.097	0.370	0.085	0.101	0.139	0.032	0.081	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186		0.000	0.095		0.000	0.028		0.000	0.028		0.000	0.028		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.120	0.028	0.039		0.000	0.016		0.000	0.006		0.000	0.006		0.000	0.006		0.000	0.000		0.000	0.000
Toluene	9065.0	0.920	0.244	0.306		0.000	0.133		0.000	0.049		0.000	0.049		0.000	0.049		0.000	0.000		0.000	0.000
Xylene	62510.0	0.460	0.106	0.154		0.000	0.066		0.000	0.021		0.000	0.021		0.000	0.021		0.000	0.000		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	6800	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2800	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2600	2.465	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.699	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.996	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	5.351	994.9	620	0.623	3.420	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8800	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.553	994.9	ND	0.251	0.379	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	1.707	994.9	ND	0.251	0.580	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.309	994.9	ND	0.251	0.312	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.442	994.9	ND	0.251	0.446	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.974	994.9	1200	1.206	2.029	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	5.730	994.9	3400	3.417	4.171	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	8300	8.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	14.332	994.9	10000	10.051	13.913	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.690
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8800	8.637	16.079	994.9	8300	8.343	14.944	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.788
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.529	994.9	1000	1.005	1.552	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.270

Parameter		Week of																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.418	1005.4	9100	9.051	8.102	1056.7		0.000	4.186	1001.7		0.000	4.186	1009.2		0.000	4.186	951.3		0.000	1.810	1011.5		0.000	0.000
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7		0.000	2.397	1001.7		0.000	2.397	1009.2		0.000	2.397	951.3		0.000	0.219	1011.5		0.000	0.000
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7		0.000	0.278	1001.7		0.000	0.278	1009.2		0.000	0.278	951.3		0.000	0.109	1011.5		0.000	0.000
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7		0.000	1.349	1001.7		0.000	1.349	1009.2		0.000	1.349	951.3		0.000	0.637	1011.5		0.000	0.000
Flourene	1250.0	1010.0	14000	13.861	7.366	1005.4	8800	8.554	8.396	1056.7		0.000	4.483	1001.7		0.000	4.483	1009.2		0.000	4.483	951.3		0.000	1.711	1011.5		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7		0.000	0.099	1001.7		0.000	0.099	1009.2		0.000	0.099	951.3		0.000	0.050	1011.5		0.000	0.000
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7		0.000	9.325	1001.7		0.000	9.325	1009.2		0.000	9.325	951.3		0.000	3.979	1011.5		0.000	0.000
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7		0.000	9.721	1001.7		0.000	9.721	1009.2		0.000	9.721	951.3		0.000	3.979	1011.5		0.000	0.000
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7		0.000	0.952	1001.7		0.000	0.952	1009.2		0.000	0.952	951.3		0.000	0.418	1011.5		0.000	0.000

140159 E-05-072

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe removal	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out west.	Primary Evacuation Point: Dive Trailer	
Secondary Evacuation Point: E. Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes.	Inspection Date: 3-8-05	Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:
[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**
Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: IF working in noisey area

140159 E-05-072

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out west.	Primary Evacuation Point: Dive Trailer
Secondary Evacuation Point: E. Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes.	Inspection Date: 3-8-05 Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) **Superlite** ( ) **Miller** [X] **Desco** ( ) **Band mask** ( ) **Aga** ( ) **other**

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: if working in noisey area.

Confined Space: [ ] N/A **Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No**

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LifeJacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within Workarea
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Eqy	Watch Wind Change.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Caution of Ladder climbing.	3 point Contact points.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up pipe.	Watch Rigging / Pinch point

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-15-05

[illegible]			
[illegible]			
[illegible]			
[illegible]			

Confined Space: [ ] N/A **Will you have to break the plane of the vessel at any point during the operation?** ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LifeJacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within Workarea
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equip.	Watch Wind Change.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Care of Ladder climbing.	3 point Contact points.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip, etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up pipe.	Watch Rigging / Pinch point

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-5-05

[illegible]			
[illegible]			
[illegible]			
[illegible]			

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Hatcher Sr. Harbor Canal

JOB NO: 072 DATE: 7-5-05

VIS: 0 TEMP:

DIVER: Villareal 2600 PSI B.O.

DIVE 1	25' Depth		DIVE 2		DIVE 3	
Depth	0933	SI	Depth	SI	Depth	
LS	1137	NG	LS	NG	LS	
LB		RNT	LB	RNT	LS	
BT			BT		BT	
DECO			RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG		RG	
			TBL		TBL	

REMARKS: Lower in Stellux & Dove line / Jetting @ North (Land side) dike wall! Operation / Allow the pipe to be cut & Removed!!

DIVER: Jack Beaudoin 3100 PSI B.O.

DIVE 1			DIVE 2		DIVE 3	
Depth	25	SI	Depth	SI	Depth	
LS	1320	NG	LS	NG	LS	
LB	1445	RNT	LB	RNT	LB	
BT			BT		BT	
DECO	145 TBT		RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG		RG	
			TBL		TBL	

REMARKS: Dive IN water cut #1 & #2 pipe removed 2 pipes & cut 3/4 of #4 Land Side

DIVER:

DIVE 1			DIVE 2		DIVE 3	
Depth		SI	Depth	SI	Depth	
LS		NG	LS	NG	LS	
LB		RNT	LB	RNT	LB	
BT			BT		BT	
DECO			RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG		RG	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Hatcher Cns
Chicago Harbor Canal

JOB NO: 072 DATE: 7-[illegible]-05
VIS: [illegible] TEMP:

DIVER: Villareal 2600 PSI B.O.

DIVE 1	25' Depth		DIVE 2		DIVE 3	
Depth	0933	SI	Depth	SI	Depth	
LS	1137	NG	LS	NG	LS	
LB		RNT	LB	RNT	LB	
BT			BT		BT	
DECO			RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG		RG	
			TBL		TBL	

REMARKS: Diver installing 2 Dia. Pipe / Jetting @ North (Land Side) of wall. Drill Hole / the pipe to be cut & removed.

3100 PSI B.O.

DIVER: Jack Beaulieu

DIVE 1			DIVE 2		DIVE 3	
Depth	25	SI	Depth	SI	Depth	
LS	12:20	NG	LS	NG	LS	
LB	1145	RNT	LB	RNT	LB	
BT			BT		BT	
DECO	145 TBT		RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG		RG	
			TBL		TBL	

REMARKS: Dive IN water to cut #1 & #2 pipe. removed 2 pipes & cut 3/4 of #4 Land Side

DIVER:

DIVE 1			DIVE 2		DIVE 3	
Depth		SI	Depth	SI	Depth	
LS		NG	LS	NG	LS	
LB		RNT	LB	RNT	LB	
BT			BT		BT	
DECO			RNT +		RNT +	
RS			TBT =		TBT =	
RG			DECO		DECO	
TBL			RS		RS	
			RG			

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
230

DATE
06 Jul 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 63 °F, Max 75 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Removal of the pipes in area was completed. Video verification and surveying is scheduled for 070705. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started today

The following activity was finished today:

Activity No	Description
0001-07-04	Construction Schedule - Monthly Update 4

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 230

DATE 06 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	1.0	8.0
Thatcher Engineering	DIVER PUMPER	5.0	40.0
	Total	13.0	106.0

Total hours worked to date: 3,238.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
	Total	16.0	16.0

Total operating hours to date: 634.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/8/5		7-8-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:20:19 06-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.132 mg/m³
Time at maximum: 09:20:20 Jul 06
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:20:19 Jul 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Jul	09:25:19	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:01:48 06-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 12:01:48 Jul 06
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:01:48 Jul 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Jul	12:06:48	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:11:53 06-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.185 mg/m³
Time at maximum: 14:12:28 Jul 06
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 14:12:53 Jul 06
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Jul	14:16:53	0.011

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:25:09 06-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.342 mg/m³
Time at maximum: 15:25:11 Jul 06
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:25:39 Jul 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Jul	15:30:09	0.007

Site: Indiana Harbor Obstruction Removal
PN 030244
Date: 7/6/15
Page: 1 of 1

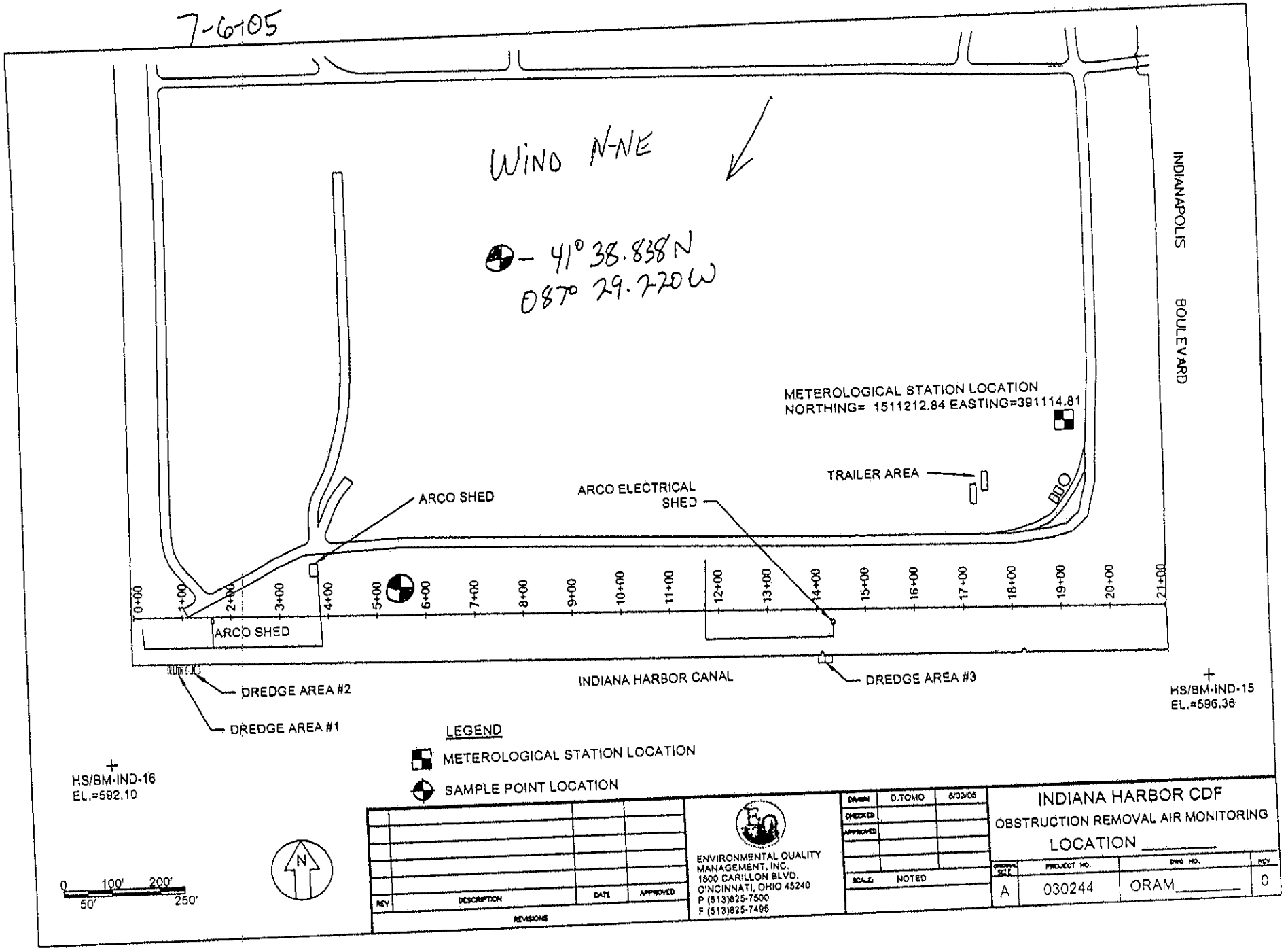
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Voc 070605					06:	:	24	6
TO-13	Semi-Vol 070605					06:	:	24	999.42
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BF
Calculations by: BF
Checked by:

Activities performed on site: Diving: Rock Delivery
Weather conditions: Sunny, Hot, NE WIND
Analytical lab: STL
COC Number: EQ 13151, 13152

7-6-05


WIND N-NE
41° 38.838N
087° 29.720W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV 0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: _____ Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-6-05 08:15	PDR	Ben [illegible]	zero Calibration	"Cal OK"	Sunny, Warm N-NE Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-4-05

Enter city or US zip See weather related to ... GO

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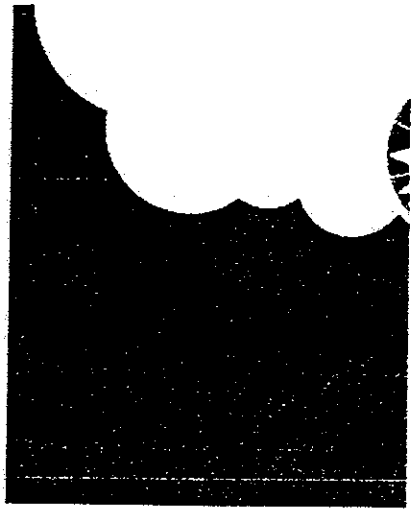
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Storm Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:45 AM	Mostly Cloudy 63°F	63°F	61°F	94%	10.0 miles	30.02	calm
Sunrise at 5:22 AM							
5:45 AM	Partly Cloudy 68°F	68°F	64°F	88%	10.0 miles	30.01 ↓	Variable 5mph
6:47 AM	Mostly Cloudy 70°F	70°F	66°F	88%	10.0 miles	30.02 ↑	Variable 5mph
7:45 AM	Cloudy 70°F	70°F	66°F	88%	10.0 miles	30.05 ↑	Variable 6mph
8:50 AM	Mostly Cloudy 73°F	73°F	66°F	78%	10.0 miles	30.06 ↑	Variable 6mph
9:50 AM	Cloudy 73°F	73°F	66°F	78%	Unlimited	30.07 ↑	From NNE 9mph
10:50 AM	Mostly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.07 →	From NE 8mph
11:50 AM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.08 ↑	From NNE 9mph
12:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.07 ↓	From NNE 14mph
1:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.06 ↓	From NNE 14mph
2:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	7.0 miles	30.06 →	N/A



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Special Offers in East Chic

3:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	7.0 miles	30.05 ↓	From NNE 12mph
4:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	10.0 miles	30.04 ↓	From NNE 12mph
5:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	10.0 miles	30.04 →	From NNE 14mph
6:45 PM	Partly Cloudy 73°F	73°F	66°F	78%	10.0 miles	30.04 →	From NNE 12mph
7:55 PM	Mostly Cloudy 72°F	72°F	66°F	83%	7.0 miles	30.04 →	From NNE 12mph
Sunset at 8:26 PM							
8:55 PM	Mostly Cloudy 72°F	72°F	66°F	83%	10.0 miles	30.04 →	From NNE 12mph
9:45 PM	Mostly Cloudy 70°F	70°F	66°F	88%	10.0 miles	30.05 ↑	From NNE 12mph

Avg. 72° 30.05

Back to previous page

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13151

Project No.	Project Name																	
030214	Indiana Harbor Obstruction Removal																	
Samplers/Affiliation: (Print Name and Sign) Ben Letsky Ben Letsky / EQM				Lab P.O. No: 9132														
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15												
VOC 070605	7-6-05	24hr.	Suma Canister	6 L	1	X												

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Ben Letsky	7-7-05	830	Jerry Hulm	7/7/05	830	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number
Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-Day 7/15/05		Report To: Jackie Doan			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13152

oject No.: 030244

Project Name: Indiana Harbor Obstruction Removal

amplers/Affiliation: (Print Name and Sign) Ben Lelary / EQM

Lab P.O. No: 9132

ample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13 18270	TO-13 11668
emi-Vol 070605	7-7-05	24hr.	Filter	999.4L	2	X	X

linquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
	7-7-05	0830		7/7/05	830	STL - Pick up on site
linquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
linquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

porting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 7/15/05	Report To: Jackie Dorn	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Hatchery Pipe Removal JOB NO: 072 DATE: 7-6-05
VIS: TEMP:
B.O. 2600

DIVER: Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	25'	SI	Depth	SI		Depth	
LS	08:23	NG	LS	NG		LS	
LB	1.52	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	204 TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Cut out #4 (5 Foot Piece)
Cut #3 Both Ends. (Completed)

Std by B.O 3100 PSI.

DIVER: Villarreal

DIVE 1			DIVE 2			DIVE 3	
Depth	25	SI	Depth	SI		Depth	
LS	1249	NG	LS	NG		LS	
LB	1337	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	48 min		RNT +			RNT +	
RS			TBT =			TBT =	
RG	TBT		DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Install plugs on 2 & 3

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Hatchwi Pipe Removal JOB NO: C72 DATE: 7-6-05

VIS: TEMP:

B.O. 2600

DIVER: Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	25	SI	Depth	SI		Depth	
LS	08:25	NG	LS	NG		LS	
LB	11:52	RNT	LB	RNT		LB	
BT	204 TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Cut out #4 (5 Foot Piece)
Cut #3 Both Ends. (Completed)

Std by B.O 3100 PSI.

DIVER: Villarreal

DIVE 1			DIVE 2			DIVE 3	
Depth	25	SI	Depth	SI		Depth	
LS	1249	NG	LS	NG		LS	
LB	1337	RNT	LB	RNT		LB	
BT	48 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Install plugs on 2 & 3

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

140159 E-05-072

Onyx Special Services, Inc | MARINE SERVICES | Job Safety Analysis

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe removal	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction:	out of west.	Primary Evacuation Point:	Dive Trailer
Secondary Evacuation Point:	E. Trailer	Backup Emergency Communications:	
Fire Extinguisher Available:	Yes.	Inspection Date: 3-8-05	Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the Job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather For All Hydroblasting Operations: [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: IF working in noisey area.

140159 E-05-072

Onyx Special Services, Inc MARINE SERVICES Job Safety Analysi

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe removal	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of West.	Primary Evacuation Point: Dive Trailer	
Secondary Evacuation Point: E. Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes.	Inspection Date: 3-8-05	Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather For All Hydroblasting Operations: [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

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[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

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[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other:

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: if working in noisey area.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met

Place an "X" next to each item needed for the job.

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LifeJacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within Workarea
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Equ,	Watch Wind Change.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Care of ladder climbing.	3 point Contact points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up pipe.	Watch Rigging / Pinch point

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-5-05	7-6-05		
Jack Beaudoin	Jack Beaudoin		

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	lifejacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within Workarea
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Eqy	Watch Wind Change.
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Care of ladder climbing.	3 point Contact points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up pipe.	Watch Rigging / Pinch point

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I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-5-05	7-6-05		
[signature]	[signature]		
[signature]	[signature]		
[signature]	[signature]		

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/06																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.108	0.480	0.150	0.120	0.160	0.050	0.092	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.024	0.100	0.023	0.025	0.042	0.010	0.022	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.283	0.710	0.188	0.278	0.250	0.066	0.244	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.097	0.370	0.085	0.101	0.139	0.032	0.081	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.080	0.210	0.066	0.093	0.440	0.138	0.120		0.000	0.092		0.000	0.088
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.014	0.055	0.013	0.017	0.094	0.022	0.021		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.116	0.430	0.114	0.141	0.640	0.170	0.175		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.059	0.245	0.056	0.070	0.450	0.104	0.091		0.000	0.070		0.000	0.053

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.986	1014.0	3400	3.353	6.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.890	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	26000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4600	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	7300	7.082	13.060	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	5.351	994.9	620	0.623	3.420	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.553	994.9	ND	0.251	0.379	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	1.707	994.9	ND	0.251	0.580	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.309	994.9	ND	0.251	0.312	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.442	994.9	ND	0.251	0.445	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.974	994.9	1200	1.206	2.029	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	5.730	994.9	3400	3.417	4.171	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	8300	8.359	7.801	986.1	8100	8.186	7.266	1018.9	15000	14.722	14.332	994.9	10000	10.051	13.913	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.690
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	6400	6.518	9.762	1018.9	8800	8.637	16.079	994.9	8300	8.343	14.944	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.081	13.769
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.529	994.9	1000	1.005	1.552	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.866	1054.4	3000	2.845	1.270

Parameter		Week of																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	6.458	1001.7	17000	16.971	9.652	1009.2	22000	21.799	14.212	951.3		0.000	11.836	1011.5		0.000	10.025
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	2.795	1001.7	1800	1.797	3.154	1009.2	7600	7.531	4.660	951.3		0.000	2.462	1011.5		0.000	2.263
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.862	1056.7	1200	1.136	0.505	1001.7	1000	0.998	0.705	1009.2	1300	1.288	0.962	951.3		0.000	0.794	1011.5		0.000	0.684
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.201	1001.7	ND	0.250	0.251	1009.2	ND	0.248	0.301	951.3		0.000	0.251	1011.5		0.000	0.202
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	1.860	1001.7	7500	7.487	3.358	1009.2	9400	9.314	5.221	951.3		0.000	4.508	1011.5		0.000	3.871
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	6.944	1001.7	13000	12.978	9.539	1009.2	18000	17.836	13.106	951.3		0.000	10.334	1011.5		0.000	8.823
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Napthalene	30.0	1010.0	27000	26.733	17.082	1005.4	20000	19.893	19.060	1056.7	26000	24.605	14.246	1001.7	20000	19.956	16.239	1009.2	40000	39.635	26.165	951.3		0.000	20.820	1011.5		0.000	16.641
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.669	14.453	1001.7	40000	39.932	22.439	1009.2	50000	49.544	32.348	951.3		0.000	26.605	1011.5		0.000	22.627
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	1.463	1001.7	4100	4.093	2.282	1009.2	4800	4.756	3.233	951.3		0.000	2.699	1011.5		0.000	2.261

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	ug/m3 Limit	Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.046	1030.8	17000	0.016	0.039	1032.2	24000	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	27000	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.038	1032.8	47000	0.046	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	30000	0.029	0.038
PCB31		923.5	49000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	27000	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1800	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2900	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5500	0.005	0.004	1032.8	5600	0.005	0.005	970.3	6000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180		923.5	1600	0.002	0.002	1014.0	1600	0.002	0.002	1032.8	2600	0.003	0.002	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL	1000.0			0.225	0.225			0.176	0.200			0.223	0.208			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.028	994.9	28000	0.028	0.029	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15		990.7	7500	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006	994.9	4900	0.005	0.006	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.039	994.9	35000	0.035	0.040	1050.6	4500	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024	994.9	22000	0.022	0.026	1050.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.026	1018.9	8000	0.008	0.025	994.9	23000	0.023	0.027	1050.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118		990.7	5800	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.026	1001.7	22000	0.022	0.031	1009.2	19000	0.019	0.034	951.3		0.000	0.023	1011.5		0.000	0.017
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.006	1001.7	7900	0.008	0.007	1009.2	8200	0.008	0.009	951.3		0.000	0.006	1011.5		0.000	0.005
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.045	1001.7	69000	0.069	0.059	1009.2	70000	0.069	0.072	951.3		0.000	0.051	1011.5		0.000	0.041
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.028	1056.7	30000	0.028	0.019	1001.7	44000	0.044	0.028	1009.2	38000	0.038	0.035	951.3		0.000	0.026	1011.5		0.000	0.022
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.027	1001.7	47000	0.047	0.036	1009.2	35000	0.035	0.043	951.3		0.000	0.031	1011.5		0.000	0.026
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3		0.000	0.001	1011.5		0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.002	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3		0.000	0.002	1011.5		0.000	0.002
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3		0.000	0.001	1011.5		0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
Total	1000.0			0.206	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
231

DATE
07 Jul 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 66 °F, Max 75 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Onyx attempted to video record the pipe plugs. This was not effective. Arthur Rundzaitis said USACE would wave the verification of the plugging on the pipes in this segment as long as the northern ends were removed entirely. This will be done. He emphasized the the northern ends of the pipes in area 1 (which will remain) must be removed within 12 inches of the surface of the existing ssp wall. This must be verified with either an independant diver or effective video recording. EQ/Thatcher/Onyx will look into this. DLZ surveyed the pipe ends in area two. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, five personnel from Onyx (divers), two surveyors from DLZ, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
Onyx attempted to video record the pipe plugs. This was not effective. Arthur Rundzaitis said USACE would wave the verification of the plugging on the pipes in this segment as long as the northern ends were removed entirely. This will be done. He emphasized the the northern ends of the pipes in area 1 (which will remain) must be removed within 12 inches of the surface of the existing ssp wall. This must be verified with either an independant diver or effective video recording. EQ/Thatcher/Onyx will look into this.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 231

DATE 07 Jul 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		2.0	8.0
ECM	SAFETY ENGINEER - ON SITE		1.0	10.0
ECM	SUPER - JOB		1.0	8.0
ECM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		5.0	40.0
Total hours worked to date:	3,352.0	Total	15.0	114.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CR02136	Small Excavator		4.0	4.0
Total operating hours to date: 650.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/8/5		7-8-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:17:57 07-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:17:57 Jul 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:17:57 Jul 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jul	09:22:57	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:21:52 07-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.490 mg/m³
Time at maximum: 11:21:53 Jul 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:21:52 Jul 07
Overall Avg Conc: 0.014 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jul	11:26:52	0.012

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 12:43:36 07-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 12:43:36 Jul 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:43:36 Jul 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jul	12:48:36	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:31:53 07-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.071 mg/m³
Time at maximum: 15:32:03 Jul 07
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:31:53 Jul 07
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	7-Jul	15:36:53	0.003

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-

Project No.	Project Name
0302414	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 070705	7-7-05	24hr.	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-8-05	9:00	[illegible]	7/8	9:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7/16/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13154

Project No.	Project Name																	
030244	Indiana Harbor Obstruction Removal																	
Samplers/Affiliation: (Print Name and Sign)				Lab P.O. No:														
[illegible]			1 EQM	9132														
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS												
						TO-13/5270	TO-13/1668											
Semi-Vol 070705	7705	24hr	Filter	1,075.7 L	2	x	x											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[illegible]	7-13-05	900	[illegible]	7-13	900	STL - Pick up on Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	7-DAY 7-16-05	JACKIE DEAN	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

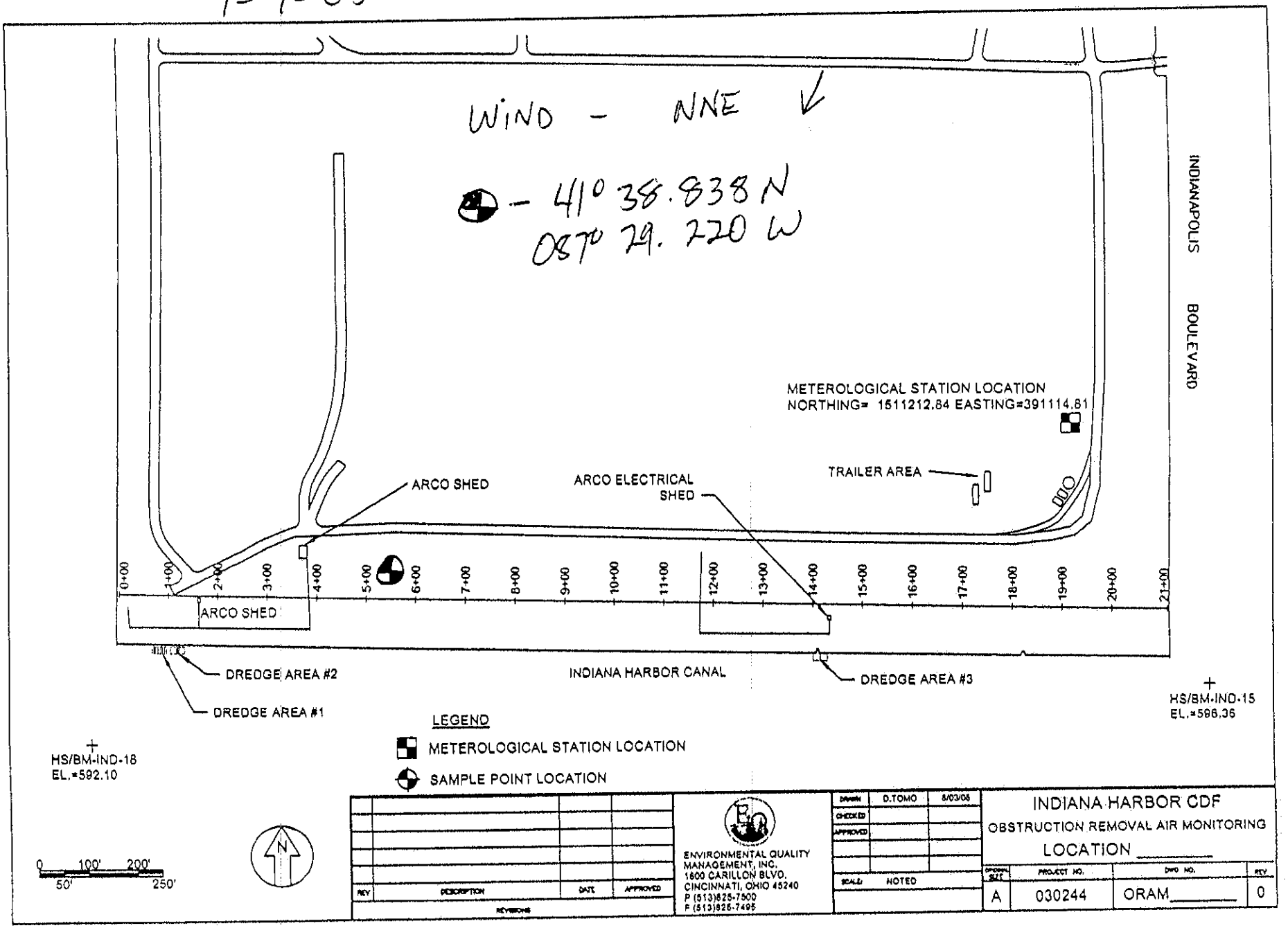
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-7-05 0743	PDR	Ben Fleming	Zero Calibration	"Cal OK"	Sunny, Hot NE wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-7-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

Site: Indiana Harbor
PN 030244
Date: 7/7/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR.	Air Volume, liters
TO-15	VOC 070705					06:35	06:30	24	6
TO-13	SMiVo 070705					06:35	06:30	24	1,075.7
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Diving, Mixing Soil; Backfilling
Weather conditions: Sunny, NNE Wind
Analytical lab: STL COC Number: EQ 13153, 13154

7-7-05

Enter city or US zip See weather related to ... GO

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 66°F	66°F	64°F	94%	7.0 miles	30.06	Variable 7mph
Sunrise at 5:23 AM							
5:50 AM	Sunny 68°F	68°F	64°F	88%	7.0 miles	30.05 ↓	From NE 8mph
6:50 AM	Sunny 70°F	70°F	64°F	83%	7.0 miles	30.06 ↑	From E 12mph
7:50 AM	Partly Cloudy 72°F	72°F	64°F	78%	7.0 miles	30.07 ↑	From ESE 9mph
8:50 AM	Mostly Cloudy 75°F	77°F	68°F	78%	10.0 miles	30.09 ↑	From NNE 8mph
9:50 AM	Partly Cloudy 75°F	77°F	68°F	78%	10.0 miles	30.08 ↓	From NNE 8mph
10:50 AM	Partly Cloudy 75°F	77°F	66°F	73%	10.0 miles	30.09 ↑	From NNE 9mph
11:50 AM	Partly Cloudy 77°F	79°F	68°F	74%	10.0 miles	30.09 ↓	From NNE 14mph
12:50 PM	Partly Cloudy 79°F	81°F	66°F	65%	10.0 miles	30.09 →	From N 7mph
1:50 PM	Mostly Cloudy 79°F	81°F	66°F	65%	10.0 miles	30.08 ↓	From N 7mph
2:50 PM	Mostly Cloudy 75°F	76°F	64°F	69%	Unlimited	30.07 ↓	From N 7mph

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3:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.06 ↓	From N 12mph
4:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.05 ↓	From NNE 12mph
5:50 PM	Partly Cloudy 75°F	76°F	64°F	69%	Unlimited	30.05 →	From N 12mph
6:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.05 →	From NNE 12mph
7:50 PM	Partly Cloudy 73°F	73°F	64°F	73%	Unlimited	30.05 →	From NNE 9mph
Sunset at 8:26 PM							
8:50 PM	Partly Cloudy 72°F	72°F	64°F	78%	Unlimited	30.06 ↑	Variable 7mph
9:50 PM	Clear 70°F	70°F	64°F	83%	Unlimited	30.08 ↑	From N 9mph

Avg. 74° 30.07

Back to previous page

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CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: hatcher Inc In. Harbor Canal

JOB NO: 072 DATE: 7-7-05

VIS: 0 TEMP: 75

3:00 B.O. PSI

DIVER: Jack Bendin

DIVE 1			DIVE 2			DIVE 3	
Depth	24'	SI	Depth	SI		Depth	
LS	092	NG	LS	NG		LS	
LB	10:46	RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver IN water to video

2600 B.O.

DIVER: J. Villarreal

DIVE 1			DIVE 2			DIVE 3	
Depth	25	SI	Depth	SI		Depth	
LS	1204	NG	LS	NG		LS	
LB	1221	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	17 TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Down to help Survey pipe locations [Complete Area #2]

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Hatcher Zins In Harbor Canal

JOB NO: 072 DATE: 7-7-05

VIS: 0 TEMP: 75

3:00 B.O. Psi

DIVER: Jack Bendein

DIVE 1			DIVE 2			DIVE 3		
Depth	24'	SI	Depth		SI	Depth		
LS	0912	NG	LS		NG	LS		
LB	10:46	RNT	LB		RNT	LB		
BT			BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diver IN water to video

2600 B.O.

DIVER: J. Villarreal

DIVE 1			DIVE 2			DIVE 3		
Depth	25	SI	Depth		SI	Depth		
LS	1204	NG	LS		NG	LS		
LB	1221	RNT	LB		RNT	LB		
BT	17 TBT		BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diver Down to help Survey pipe locations [Complete Area #2]

DIVER:

DIVE 1			DIVE 2			DIVE 3		
Depth		SI	Depth		SI	Depth		
LS		NG	LS		NG	LS		
LB		RNT	LB		RNT	LB		
BT			BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS:

140159 E-05-072

Onyx Special Services, Inc MARINE SERVICES Job Safety A

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of West	Primary Evacuation Point: Dive Trailer	
Secondary Evacuation Point: SE Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes	Inspection Date: 3-8-05	Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the Job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: IF working in noisey area.

140159E-05-072

Onyx Special Services, Inc MARINE SERVICES Job Safety A

Thatcher Eng. / Ind Harbor Canal Pipe Removal

Plant: Ind Harbor Canal	Contact: Tom S.	Date: 7-5-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe removal	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out west.	Primary Evacuation Point: Dive Trailer	
Secondary Evacuation Point: E. Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes.	Inspection Date: 3-8-05	Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather For All Hydroblasting Operations: [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [ ] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other:

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: IF working in noisey area.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTEC
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	Life Jacket within 4
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within W
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Eqy.	Watch Wind Cl
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Care of ladder climbing.	3 point Contact
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up ppe.	Watch Riggin

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergenci assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE T ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-5-05	7-6-05	7-7-05	

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a.
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LiFejacket within 4'
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver Within Wa
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Exh Fumes From Eqy.	Watch Wind Ch
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Care of ladder climbing.	3 point Contact
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Air Saw. / Oxy Arc.	
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Picking up ppe.	Watch Rigging

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

7-5-05	7-6-05	7-7-05	
Jack Beaudoin	Jack Beaudoin	Jack Beaudoin	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.108	0.480	0.150	0.120	0.160	0.050	0.092	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.024	0.100	0.023	0.025	0.042	0.010	0.022	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.263	0.710	0.188	0.278	0.250	0.066	0.244	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.097	0.370	0.085	0.101	0.139	0.032	0.081	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.080	0.210	0.066	0.093	0.440	0.138	0.120		0.000	0.092		0.000	0.068
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.098	0.022	0.020	0.094	0.022	0.014	0.055	0.013	0.017	0.094	0.022	0.021		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.118	0.430	0.114	0.141	0.640	0.170	0.175		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.059	0.245	0.056	0.070	0.450	0.104	0.091		0.000	0.070		0.000	0.053

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	6600	6.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.354	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.465	2.749	1032.8	2900	2.808	2.788	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.890	1030.8	1500	1.455	2.375	1032.2	1900	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.256	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.995	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.259	1.206

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	5.351	994.9	620	0.623	3.420	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.158	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.553	994.9	ND	0.251	0.379	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	1.707	994.9	ND	0.251	0.580	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.309	994.9	ND	0.251	0.312	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.442	994.9	ND	0.251	0.446	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.974	994.9	1200	1.206	2.029	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	5.730	994.9	3400	3.417	4.171	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	14.332	994.9	10000	10.051	13.913	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.660
Phenanthrene	9376.0	990.7	14000	14.131	11.582	986.1	8400	8.518	9.762	1018.9	8800	8.637	16.079	994.9	8300	8.343	14.944	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.769
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.529	994.9	1000	1.005	1.552	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.270

Parameter		Week of																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	6.458	1001.7	17000	16.971	9.852	1009.2	22000	21.799	14.212	951.3		0.000	11.836	1011.5		0.000	10.025
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	2.795	1001.7	1800	1.797	3.154	1009.2	7600	7.531	4.660	951.3		0.000	2.482	1011.5		0.000	2.263
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	0.505	1001.7	1000	0.998	0.705	1009.2	1300	1.288	0.962	951.3		0.000	0.794	1011.5		0.000	0.884
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.201	1001.7	ND	0.250	0.251	1009.2	ND	0.248	0.301	951.3		0.000	0.251	1011.5		0.000	0.202
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.556	1.860	1001.7	7500	7.487	3.358	1009.2	9400	9.314	5.221	951.3		0.000	4.508	1011.5		0.000	3.871
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	6.944	1001.7	13000	12.978	9.539	1009.2	18000	17.836	13.106	951.3		0.000	10.334	1011.5		0.000	8.823
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7	26000	24.605	14.246	1001.7	20000	19.966	18.238	1009.2	40000	39.635	26.168	951.3		0.000	20.820	1011.5		0.000	16.841
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	14.453	1001.7	40000	39.932	22.439	1009.2	50000	49.544	32.348	951.3		0.000	26.605	1011.5		0.000	22.627
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	1.463	1001.7	4100	4.093	2.282	1009.2	4800	4.756	3.233	951.3		0.000	2.699	1011.5		0.000	2.261

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	ug/m3 Limit	Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
		Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		923.5	48000	0.052	0.052	1014.0	50000	0.049	0.051	1032.8	52000	0.050	0.051	970.3	43000	0.044	0.049	1022.7	36000	0.035	0.045	1030.8	17000	0.016	0.039	1032.2	24000	0.023	0.034
PCB 15		923.5	9100	0.010	0.010	1014.0	7600	0.007	0.009	1032.8	9900	0.010	0.009	970.3	8200	0.008	0.009	1022.7	7000	0.007	0.008	1030.8	4700	0.005	0.007	1032.2	5200	0.005	0.007
PCB18		923.5	55000	0.060	0.060	1014.0	36000	0.036	0.048	1032.8	54000	0.052	0.049	970.3	39000	0.040	0.047	1022.7	34000	0.033	0.044	1030.8	23000	0.022	0.037	1032.2	27000	0.026	0.035
PCB28		923.5	38000	0.041	0.041	1014.0	35000	0.035	0.036	1032.8	47000	0.045	0.040	970.3	41000	0.042	0.041	1022.7	36000	0.035	0.040	1030.8	28000	0.027	0.037	1032.2	30000	0.029	0.036
PCB31		923.5	46000	0.050	0.050	1014.0	34000	0.034	0.042	1032.8	51000	0.049	0.044	970.3	39000	0.040	0.043	1022.7	35000	0.034	0.041	1030.8	27000	0.026	0.037	1032.2	27000	0.026	0.035
PCB77		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB81		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB105		923.5	1500	0.002	0.002	1014.0	2900	0.003	0.002	1032.8	2500	0.002	0.002	970.3	2900	0.003	0.002	1022.7	2800	0.003	0.003	1030.8	1900	0.002	0.003	1032.2	1900	0.002	0.002
PCB114		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB118		923.5	2900	0.003	0.003	1014.0	5600	0.005	0.004	1032.8	5500	0.005	0.005	970.3	6000	0.006	0.005	1022.7	5900	0.006	0.005	1030.8	4300	0.004	0.005	1032.2	4400	0.004	0.005
PCB123		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB126		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB156		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB157		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB167		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB169		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB170		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
PCB180		923.5	1600	0.002	0.002	1014.0	1800	0.002	0.002	1032.8	2600	0.003	0.002	970.3	2300	0.002	0.002	1022.7	2500	0.002	0.002	1030.8	1500	0.001	0.002	1032.2	1500	0.001	0.002
PCB189		923.5	ND	0.001	0.001	1014.0	ND	0.000	0.001	1032.8	ND	0.000	0.001	970.3	ND	0.001	0.001	1022.7	ND	0.000	0.001	1030.8	ND	0.000	0.000	1032.2	ND	0.000	0.000
TOTAL	1000.0			0.225	0.225			0.176	0.200			0.223	0.208			0.193	0.204			0.161	0.195			0.110	0.172			0.123	0.162

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.028	994.9	28000	0.028	0.029	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15		990.7	7500	0.008	0.008	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006	994.9	4900	0.005	0.006	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.039	994.9	35000	0.035	0.040	1050.6	4500	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024	994.9	22000	0.022	0.026	1050.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.026	1018.9	8000	0.008	0.025	994.9	23000	0.023	0.027	1050.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118		990.7	5600	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.026	1001.7	22000	0.022	0.031	1009.2	19000	0.019	0.034	951.3		0.000	0.023	1011.5		0.000	0.017
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.006	1001.7	7900	0.008	0.007	1009.2	8200	0.008	0.009	951.3		0.000	0.006	1011.5		0.000	0.005
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.045	1001.7	69000	0.069	0.059	1009.2	70000	0.069	0.072	951.3		0.000	0.051	1011.5		0.000	0.041
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.028	1056.7	30000	0.028	0.019	1001.7	44000	0.044	0.028	1009.2	38000	0.038	0.035	951.3		0.000	0.026	1011.5		0.000	0.022
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.027	1001.7	47000	0.047	0.036	1009.2	35000	0.035	0.043	951.3		0.000	0.031	1011.5		0.000	0.026
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3		0.000	0.001	1011.5		0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.002	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3		0.000	0.002	1011.5		0.000	0.002
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
PCB170		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3		0.000	0.001	1011.5		0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3		0.000	0.000	1011.5		0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
232

DATE
08 Jul 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 61 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher worked on completing the backfill of the coffer damat area two. Inside and outside levels were measured on the west, south, and east sides of the cell and the interior stone and exterior sediment levels were within six inches of each other. EQ continued with drying of dredge sediment. Analytical air sampling results were received and were tabulated (attached). Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident. EQ discovered that the 24 hour samplers for VOC were miscalibrated for 8 hours for the period of July 1 through July 9. Since samples were collected during operating hours this would skew the apparent results to the high side.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 232

DATE 08 Jul 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	3,418.0	Total	8.0	66.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 666.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/11/5		7-12-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:16:59 08-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.340 mg/m³
Time at maximum: 09:18:42 Jul 08
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 09:21:59 Jul 08
Overall Avg Conc: 0.010 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jul	09:21:59	0.033

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:17:57 08-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.038 mg/m³
Time at maximum: 11:17:58 Jul 08
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:17:57 Jul 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jul	11:22:57	0.001

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:52:36 08-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.231 mg/m³
Time at maximum: 13:52:45 Jul 08
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 13:53:06 Jul 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jul	13:57:36	0.009

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:29:33 08-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.752 mg/m³
Time at maximum: 15:32:05 Jul 08
Max STEL Concentration: 0.005 mg/m³
Time at max STEL: 15:32:33 Jul 08
Overall Avg Conc: 0.006 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Jul	15:34:33	0.027

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13155

Project No.	Project Name	
0302441	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign) Ben Coleman / EQM		Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 070805	7-8-05	24hr.	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	7-9-05	0815	[signature]	7/9/05	815	Drop at STL-Valpo.
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7 Day 7/18/05	Report To: JACKIE DOAN	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13156**

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Semi-Vol 070805	7-8-05	24hr.	Filter	1,000.5L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-7-05	0815	Wendy [illegible]	7/9/05	815
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop at STL UMPC.

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7 DAY 7/15/05

Report To: Jackie Donn

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	IN HARBOR
PN	030244
Date:	7/8/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOL070505					06:30	06:30	24	6
TO-13	Sub-Vol 070505					06:30	06:30	24	1,000.5
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]

Calculations by: [signature]

Checked by:

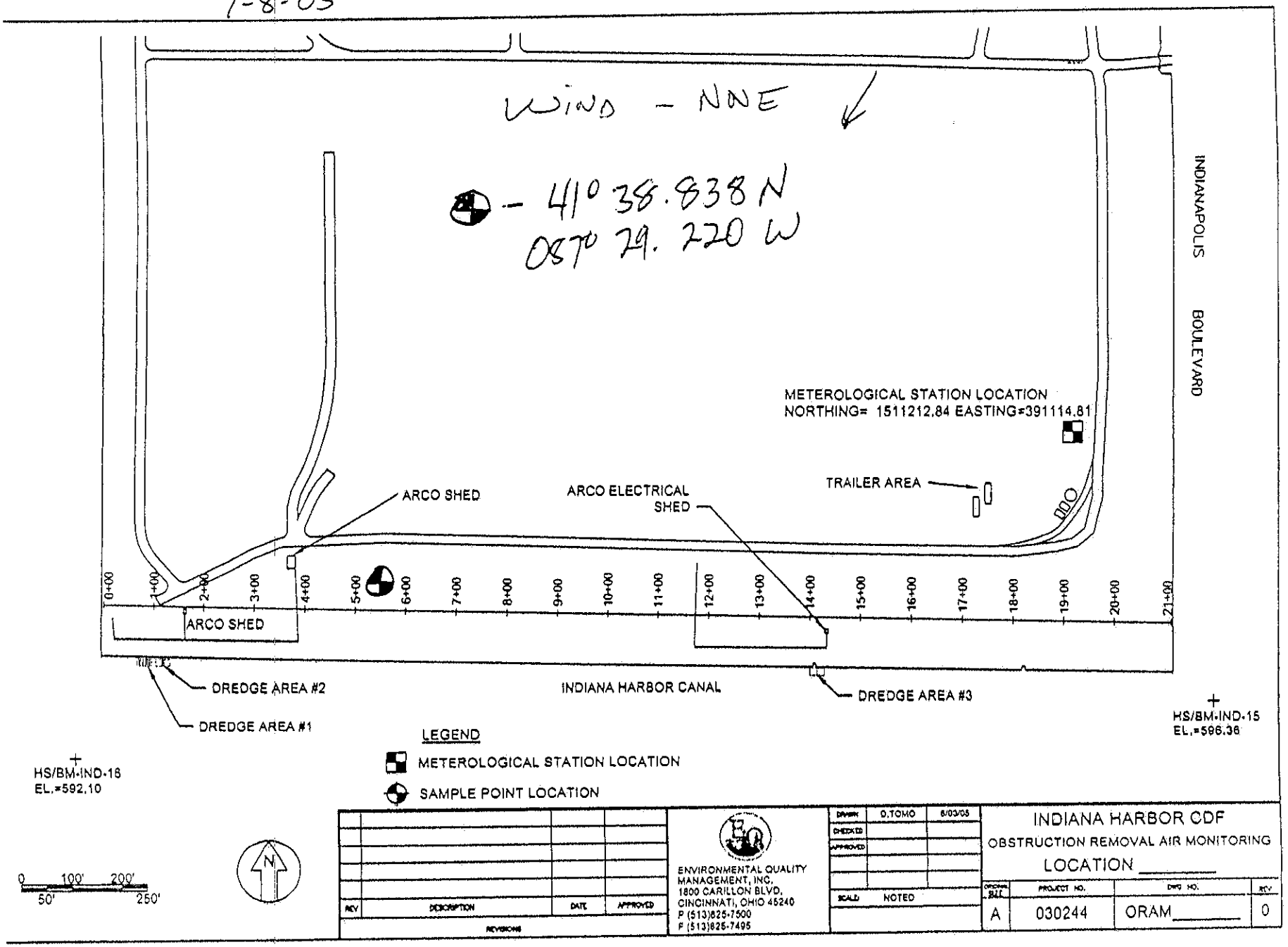
Activities performed on site: BACKFILL BLAST #3, MIX SEDIMENT

Weather conditions: SUNNY, HOT, NNE, WIND

Analytical lab: STL

COC Number: CO 13155, 13156

7-8-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

te Name: Indiana Harbor Obstruction Removal Project No.: 0302414

ATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-8-05 0754	PDR	Ben Kelly	Zero Calibration	"Cal ok"	Sunny, warm - NNE WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-8-05

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Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

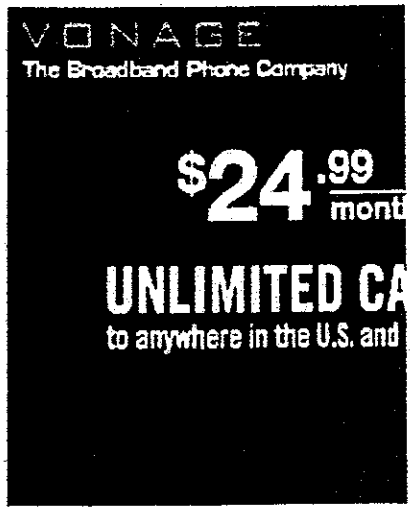
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Dennis Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear 61°F	61°F	59°F	94%	Unlimited	30.07	Variable 5mph
	Sunrise at 5:24 AM						
5:50 AM	Partly Cloudy 61°F	61°F	59°F	94%	Unlimited	30.09 ↑	Variable 6mph
6:50 AM	Sunny 72°F	72°F	64°F	78%	Unlimited	30.10 ↑	Variable 7mph
7:50 AM	Sunny 75°F	77°F	68°F	78%	Unlimited	30.12 ↑	Variable 7mph
8:50 AM	Sunny 75°F	77°F	68°F	78%	Unlimited	30.13 ↑	Variable 7mph
9:50 AM	Partly Cloudy 77°F	79°F	68°F	74%	Unlimited	30.11 ↓	From N 9mph
10:50 AM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.10 ↓	From NNE 9mph
11:50 AM	Partly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.10 →	From N 9mph
12:50 PM	Partly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.10 →	From NNE 9mph
1:50 PM	Partly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.09 ↓	From NNE 9mph
2:50 PM	Partly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.09 →	From NNE 9mph



Today in East Chicago

- Summer Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Live local traffic reports

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Special Offers in East Chic

3:50 PM	Partly Cloudy 81°F	83°F	66°F	61%	Unlimited	30.09 →	From NNE 9mph
4:45 PM	Sunny 81°F	82°F	63°F	54%	Unlimited	30.08 ↓	From NNE 9mph
5:45 PM	Sunny 81°F	81°F	61°F	51%	Unlimited	30.06 ↓	From N 9mph
6:50 PM	Sunny 79°F	79°F	61°F	54%	Unlimited	30.05 ↓	From N 9mph
7:45 PM	Partly Cloudy 75°F	76°F	61°F	61%	Unlimited	30.05 →	Variable 5mph
Sunset at 8:26 PM							
8:50 PM	Partly Cloudy 68°F	68°F	63°F	83%	Unlimited	30.06 ↑	Variable 5mph
9:50 PM	Partly Cloudy 64°F	64°F	59°F	83%	Unlimited	30.07 ↑	calm

Avg 75° 30.09

Back to previous page

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For East Chicago, IN (46312)
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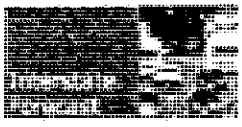
This Week's Features

Summer Lawn Care

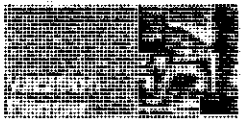
Tips to gro yard in hot weather.

Driving Weather



Check curr conditions

Summer Adventure



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Desktop Weather

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Travel

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Past Weather as reported at

Gary

July 8 hourly reports

	High	Low	Precip
Actuals	**81°F**	**61°F**	**N/A in**
Averages	**84°F**	**66°F**	--
Records	**99°F** (1980)	**55°F** (1984)	--

Sunrise: **5:23 AM**

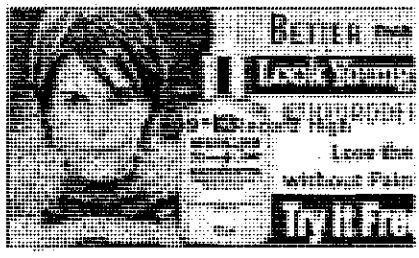
Sunset: **8:26 PM**

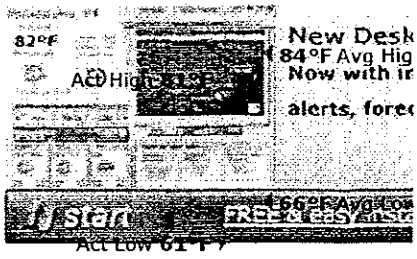
Waxing Crescent

On The Spot Weather

Choose Location

July 8's Reported Conditions





Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**57°F**	**NaN in**
Average	**84°F**	**66°F**	—
Records	**102°F** (1991)	**51°F** (1975)	—

Averages and Records

Check daily averages for the entire month

July GO!

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Parameter		Week of 060605																											
		6/6/2005				6/7/2005				6/8/2005				6/9/2005				6/10/2005				6/11/2005				6/12/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	923.5	8300	8.988	8.988	1014.0	3400	3.353	6.170	1032.8	8600	8.391	6.244	970.3	3600	3.710	5.610	1022.7	2100	2.053	4.899	1030.8	1400	1.358	3.373	1032.2	2900	2.810	3.264
Acenapthylene	1875.0	923.5	720	0.780	0.780	1014.0	ND	0.247	0.513	1032.8	ND	0.242	0.423	970.3	ND	0.258	0.381	1022.7	ND	0.244	0.364	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Anthracene	9376.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	510	0.494	0.337	970.3	ND	0.258	0.317	1022.7	ND	0.244	0.303	1030.8	ND	0.243	0.297	1032.2	ND	0.242	0.296
Benzo(a)anthracene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(b)flouranthene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(k)flouranthene	35.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(ghi)perylene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(a)pyrene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Benzo(e)pyrene		923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Chrysene	355.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Dibenzo(a,h)anthracene	0.4	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Flouranthene	1250.0	923.5	2800	3.032	3.032	1014.0	2500	2.466	2.749	1032.8	2900	2.808	2.768	970.3	3000	3.092	2.849	1022.7	2100	2.053	2.690	1030.8	1600	1.455	2.375	1032.2	1600	1.841	2.250
Flourene	1250.0	923.5	11000	11.911	11.911	1014.0	5300	5.227	8.569	1032.8	8000	7.746	8.295	970.3	5100	5.258	7.535	1022.7	3100	3.031	6.634	1030.8	2300	2.231	4.698	1032.2	3700	3.585	4.370
Indene(1,2,3-cd)pyrene	4.0	923.5	ND	0.271	0.271	1014.0	ND	0.247	0.259	1032.8	ND	0.242	0.253	970.3	ND	0.258	0.254	1022.7	ND	0.244	0.252	1030.8	ND	0.243	0.247	1032.2	ND	0.242	0.246
Napthalene	30.0	923.5	29000	31.402	31.402	1014.0	15000	14.793	23.098	1032.8	28000	27.112	24.436	970.3	8600	8.863	20.542	1022.7	4800	4.693	17.373	1030.8	3700	3.589	11.810	1032.2	16000	15.501	11.952
Phenanthrene	9376.0	923.5	20000	21.657	21.657	1014.0	13000	12.821	17.239	1032.8	19000	18.397	17.625	970.3	17000	17.520	17.599	1022.7	9800	9.582	15.996	1030.8	7300	7.082	13.080	1032.2	9800	9.494	12.415
Pyrene	938.0	923.5	1800	1.949	1.949	1014.0	1300	1.282	1.616	1032.8	1800	1.743	1.658	970.3	800	0.824	1.450	1022.7	1300	1.271	1.414	1030.8	960	0.931	1.210	1032.2	1300	1.258	1.206

Parameter		Week of 06/13/05																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	5.351	994.9	620	0.623	3.420	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.553	994.9	ND	0.251	0.379	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	1.707	994.9	ND	0.251	0.590	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.309	994.9	ND	0.251	0.312	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	690	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.893	0.442	994.9	ND	0.251	0.446	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.974	994.9	1200	1.206	2.029	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.228	1018.9	3100	3.042	5.730	994.9	3400	3.417	4.171	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.244	994.9	ND	0.251	0.248	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	14.332	994.9	10000	10.051	13.913	1050.6	4600	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.680
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8800	8.637	16.079	994.9	8300	8.343	14.944	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.769
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.529	994.9	1000	1.005	1.552	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.888	1054.4	3000	2.845	1.270

Parameter		Week of																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
	Limit	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	6.458	1001.7	17000	16.971	9.852	1009.2	22000	21.799	14.212	951.3		0.000	11.836	1011.5		0.000	10.025
Acenapthylene	1875.0	1010.0	11000	10.891	2.549	1005.4	1100	1.094	2.716	1056.7	2100	1.987	2.795	1001.7	1800	1.797	3.154	1009.2	7600	7.531	4.660	951.3		0.000	2.462	1011.5		0.000	2.263
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	0.505	1001.7	1000	0.998	0.705	1009.2	1300	1.288	0.962	951.3		0.000	0.794	1011.5		0.000	0.684
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.201	1001.7	ND	0.250	0.251	1009.2	ND	0.248	0.301	951.3		0.000	0.251	1011.5		0.000	0.202
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	1.860	1001.7	7500	7.487	3.359	1009.2	9400	9.314	5.221	951.3		0.000	4.508	1011.5		0.000	3.871
Flourene	1250.0	1010.0	14000	13.861	7.388	1005.4	8600	8.554	8.396	1056.7	13000	12.302	6.944	1001.7	13000	12.978	9.539	1009.2	18000	17.836	13.106	951.3		0.000	10.334	1011.5		0.000	8.623
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.147	1001.7	ND	0.250	0.196	1009.2	ND	0.248	0.246	951.3		0.000	0.197	1011.5		0.000	0.147
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	14.246	1001.7	20000	19.966	18.239	1009.2	40000	39.635	26.166	951.3		0.000	20.820	1011.5		0.000	16.841
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	14.453	1001.7	40000	39.932	22.439	1009.2	50000	49.544	32.348	951.3		0.000	26.605	1011.5		0.000	22.627
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	1.463	1001.7	4100	4.093	2.282	1009.2	4800	4.756	3.233	951.3		0.000	2.899	1011.5		0.000	2.281

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/13/2005

Parameter	Limit	6/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.028
PCB 15		990.7	7600	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.039
PCB28		990.7	36000	0.036	0.034	986.1	16000	0.016	0.029	1018.9	8000	0.008	0.024
PCB31		990.7	36000	0.036	0.033	986.1	16000	0.016	0.026	1018.9	8000	0.008	0.025
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB118		990.7	6600	0.006	0.006	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035

Parameter	6/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	994.9	28000	0.028	0.029	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15	994.9	4900	0.005	0.006	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18	994.9	35000	0.035	0.040	1050.6	4600	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28	994.9	22000	0.022	0.026	1050.6	3300	0.003	0.018	1070.2	16000	0.016	0.013	1054.4	46000	0.044	0.018
PCB31	994.9	23000	0.023	0.027	1050.6	2900	0.003	0.018	1070.2	16000	0.016	0.013	1054.4	51000	0.048	0.019
PCB77	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118	994.9	2000	0.002	0.003	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180	994.9	ND	0.001	0.001	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189	994.9	ND	0.001	0.000	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	56000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.052
PCB 15		1010.0	13000	0.013	0.007	1005.4	6600	0.007	0.007	1056.7	8900	0.008	0.010
PCB18		1010.0	110000	0.109	0.062	1005.4	48000	0.048	0.056	1056.7	71000	0.067	0.071
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.035
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.044
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059

Parameter	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1001.7	22000	0.022	0.046	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1001.7	7900	0.008	0.010	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18	1001.7	69000	0.069	0.078	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28	1001.7	44000	0.044	0.039	1009.2	38000	0.038	0.035	951.3	26000	0.028	0.032	1011.5	55000	0.054	0.038
PCB31	1001.7	47000	0.047	0.048	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1001.7	3300	0.003	0.004	1009.2	3600	0.004	0.003	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	35000	0.036	0.021	994.8	0	0.000	#DIV/0!
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8		0.000	#DIV/0!
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8		0.000	#DIV/0!
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.039	994.8		0.000	#DIV/0!
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8		0.000	#DIV/0!
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8		0.000	#DIV/0!
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8		0.000	#DIV/0!
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8		0.000	#DIV/0!
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	#DIV/0!
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8		0.000	#DIV/0!
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8		0.000	#DIV/0!
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	#DIV/0!
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	961.1	0	0.000	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	961.1		0.000	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	ug/m3	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.108	0.480	0.150	0.120	0.160	0.050	0.092	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.024	0.100	0.023	0.025	0.042	0.010	0.022	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.263	0.710	0.188	0.278	0.250	0.066	0.244	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.097	0.370	0.085	0.101	0.139	0.032	0.081	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.080	0.210	0.066	0.093	0.440	0.138	0.120		0.000	0.092		0.000	0.068
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.014	0.055	0.013	0.017	0.094	0.022	0.021		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.118	0.430	0.114	0.141	0.640	0.170	0.175		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.059	0.245	0.056	0.070	0.450	0.104	0.091		0.000	0.070		0.000	0.053

Nonconformance Report

Date: July 8, 2005 Project No. 030244.0018

Project Name: Indiana Harbor Construction Removal

Description of Nonconformance:

Air samples for VOC analysis were taken with 8 hr flow regulators rather than 24 hr flow regulators for July 1 through July 9. Improper use of 8 hr flow regulators results in sample period of only 8 hr rather than the required 24 hrs.

Inspector: Jackie Doan Date: July 8, 2005

Corrective Action Required:

Document event in field sample forms and Daily QC Report. Contact laboratory for immediate replacement of regulators. Evaluate all flow regulators received to ensure use of 24 hr regulators for future sampling events.

Prepared by:
Name: Jackie Doan Date: July 8, 2005

To be verified by:
Name: _____ Date: _____

Corrective Action Executed:

Executed by:
Name: _____ Date: _____

Inspected by:
Name: _____ Date: _____

Approved by:
Name: _____ Date: _____

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
235

DATE
11 Jul 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 61 °F, Max 84 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher worked on removal of the sheet pile for the coffer damat area two. EQ continued with drying of dredge sediment and loaded it in roll off boxes. The air sampler for Semi Volitiles and PCBs failed sometime during the night of 070905. No samples were collected since this happened. EQ ordered a new blower for the sampler and it is to be delivered on 071205. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards fromTask Force, three personnel fromThatcher, one operator and one laborer fromMaintenance Dynamics.

General Comments:
The air sampler for semi volitiles and PCBs failed sometime during the night of 070905. No samples were collected since this date. A new blower was ordered and is scheduled for delivery on 071205. The most recent air results show an excursion for Napthalene on the five day average on 062605 and 062705. This is due to unusually high results for 062505 to 062705. It should be noted that 062405 and 062505 were weekend days with no construction activities taking place. Stockpiles were also covered. EQ does not believe the results relate to construction activites, but rather fromhigh winds. We are evaluating the data and will provide a summary to USACE, including recommendations, as soon as possible.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 235

DATE 11 Jul 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	3,484.0	Total	8.0	66.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 682.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/12/5		7-12-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 2
Start time and date: 10:08:20 11-Jul
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.031 mg/m³
Time at maximum: 10:15:13 Jul 11
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:08:20 Jul 11
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Jul	10:13:20	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:28:45 11-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.096 mg/m³
Time at maximum: 11:33:00 Jul 11
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:28:45 Jul 11
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Jul	11:33:45	0.012

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:11:34 11-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.084 mg/m³
Time at maximum: 14:15:40 Jul 11
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:11:34 Jul 11
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Jul	14:16:34	0.007

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:01:16 11-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.081 mg/m³
Time at maximum: 15:02:15 Jul 11
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:01:16 Jul 11
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Jul	15:06:16	0.005

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13158

Project No.: 0302-44

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Letany / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 07[illegible]05	7-11-05	24hr.	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Letany	7/12/05	8:00	[illegible]	7-12-05	8:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: SIZ - Pick up on Site

Airbill Number

Chain of Custody Seal Numbers

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7/20/05

Report To: Jackie Doan

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-11-05

WIND - NE

- 41° 38.838 N
087° 29.220 W

INDIANAPOLIS BOULEVARD

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81

TRAILER AREA

ARCO SHED

ARCO ELECTRICAL SHED

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

ARCO SHED

DREDGE AREA #2

DREDGE AREA #1

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-15
EL.=596.38

HS/BM-IND-16
EL.=592.10

LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 50' 100' 200' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING DATA SHEET

Site: Indiana Harbor
PN 030244
Date: 7/11/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	YQ071105					07:00	07:00	24	6
*						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BL
Calculations by: BL
Checked by:

Activities performed onsite: Mixing soil; Tear out coffee shop; Trucking Boxes
Weather conditions: Sunny, HOT, NE wind
Analytical lab: GTL
COC Number: 13158

* NO High Vol. (TO-13) Samples Today, motor on Sampler burned up.

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indian Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-11-05 0755	PDR	[signature]	Zero Calibration	"Cal OK"	Sunny, Hot, NNE Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:45 AM	Partly Cloudy 61°F	61°F	59°F	94%	10.0 miles	30.05	calm
Sunrise at 5:26 AM							
5:50 AM	Mostly Cloudy 64°F	64°F	59°F	83%	10.0 miles	30.07 ↑	calm
6:55 AM	Mostly Cloudy 70°F	70°F	63°F	78%	10.0 miles	30.08 ↑	calm
8:00 AM	Mostly Cloudy 75°F	76°F	63°F	65%	10.0 miles	30.08 →	N/A
8:50 AM	Mostly Cloudy 81°F	83°F	66°F	61%	10.0 miles	30.08 →	Variable 3mph
9:49 AM	Mostly Cloudy 81°F	82°F	64°F	58%	Unlimited	30.09 ↑	Variable 6mph
10:50 AM	Mostly Cloudy 82°F	85°F	66°F	58%	Unlimited	30.07 ↓	Variable 7mph
12:50 PM	Mostly Cloudy 84°F	85°F	61°F	45%	Unlimited	30.04 ↓	From NNE 9mph
1:45 PM	Mostly Cloudy 84°F	84°F	59°F	42%	Unlimited	30.04 →	calm
2:50 PM	Mostly Cloudy 82°F	84°F	64°F	54%	Unlimited	30.02 ↓	From NNE 9mph
3:50 PM	Mostly Cloudy 82°F	84°F	64°F	54%	Unlimited	30.01 ↓	From NNE 12mph
	Mostly						

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South America Gay Travel

4:50 PM	Cloudy 82°F	84°F	64°F	54%	Unlimited	29.99 ↓	From NNE 9mph
5:50 PM	Mostly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.99 →	From NNE 12mph
6:50 PM	Cloudy 81°F	83°F	68°F	65%	Unlimited	29.99 →	From NE 9mph
7:50 PM	Cloudy 79°F	81°F	68°F	69%	Unlimited	29.98 ↓	From NE 9mph
Sunset at 8:24 PM							
8:50 PM	Cloudy 79°F	82°F	70°F	74%	Unlimited	29.97 ↓	From NE 12mph
9:50 PM	Cloudy 75°F	78°F	70°F	83%	N/A	29.97 →	From NE 9mph

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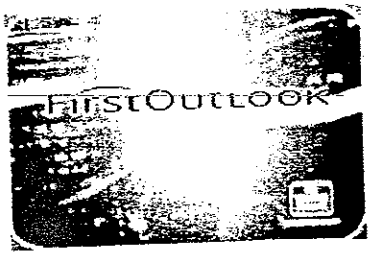

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

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Tips to gro yard in hot weather.

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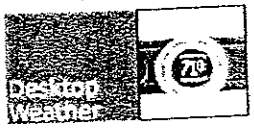

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Weather a

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13157

Project No.	Project Name
0302411	Indiana Harbor Dredge Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
VG070905	7-9-05	24hr.	Sub Canister	6 L	1	X
VG071005	7-10-05	24hr	Sub Canister	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-11-05	830	[illegible]	[illegible]	830
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 1-Day 7/19/05

Report To: Jackie Dunn

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN: 030244
Date: 7/9/05
Page: 1 of 1

SAMPLING DATA SHEET

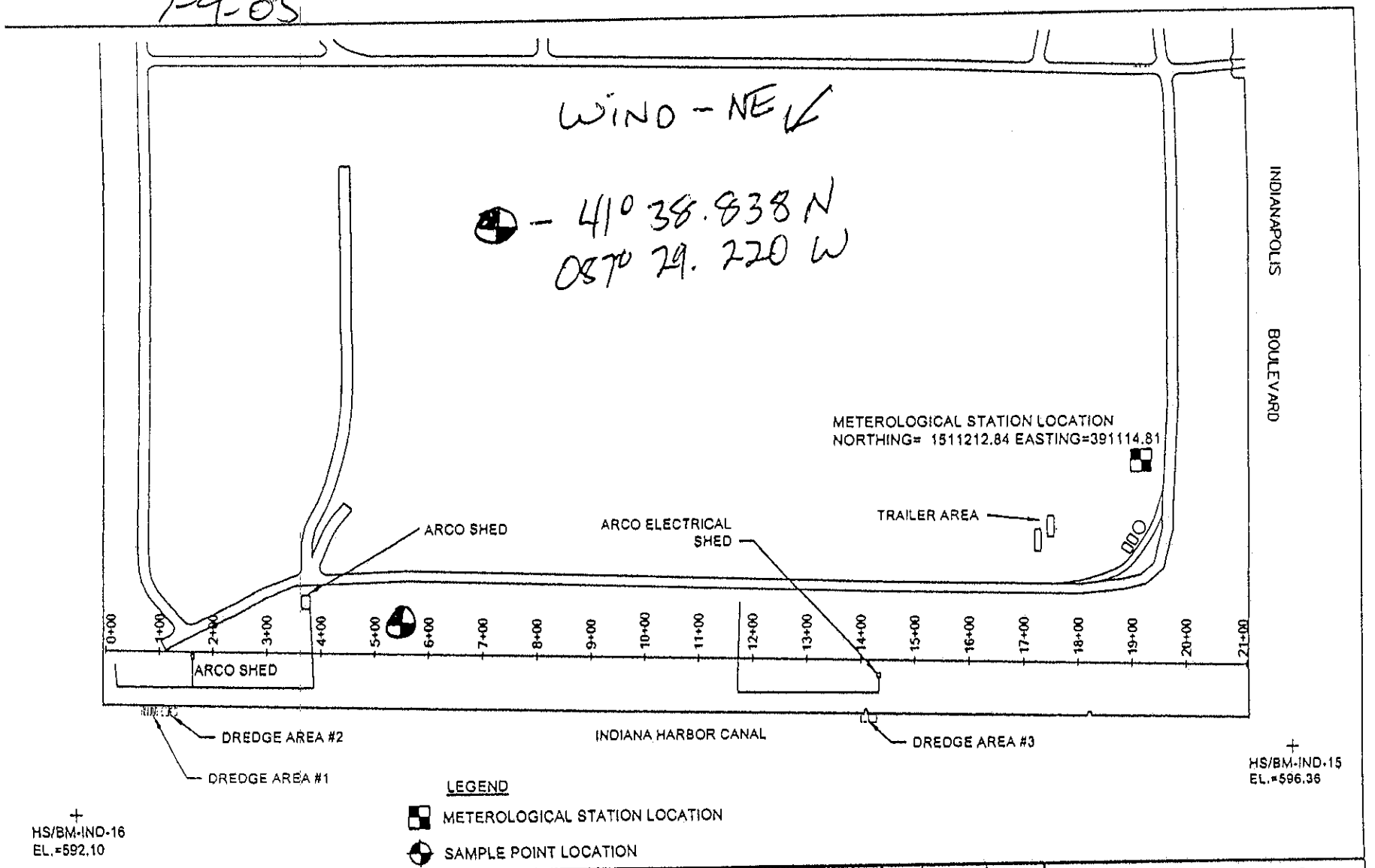
Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min.	Air Volume, liters
TO-15	IHC070905					06:30	06:30	24hr.	6L
TO-13	Smith/070905					06:30	N/A	N/A	N/A *
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible] Calculations by: [illegible] Checked by:

Activities performed on site: N.S.A ; Dredge Machine on site
Weather conditions: Sunny, Hot
Analytical lab: STL COC Number: EQ 13157

* High Vol. pump motor went Down between 4:00pm (7/9) and 6:30am (7/10). Sample time unknown. No Sample FOR PCB, PAH TODAY

7-9-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DISCIPLINE SUFF.	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

7-9-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Dennis Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

July 9 Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 57°F	57°F	55°F	94%	10.0 miles	30.11	calm
	Sunrise at 5:24 AM						
5:50 AM	Partly Cloudy 55°F	55°F	54°F	94%	Unlimited	30.13 ↑	calm
6:50 AM	Partly Cloudy 63°F	63°F	61°F	94%	Unlimited	30.13 →	calm
7:50 AM	Partly Cloudy 72°F	72°F	61°F	69%	Unlimited	30.14 ↑	calm
8:50 AM	Partly Cloudy 79°F	78°F	50°F	36%	Unlimited	30.15 ↑	calm
9:46 AM	Partly Cloudy 81°F	79°F	45°F	28%	Unlimited	30.16 ↑	calm
10:45 AM	Partly Cloudy 81°F	80°F	52°F	37%	Unlimited	30.16 →	Variable 6mph
11:50 AM	Partly Cloudy 84°F	83°F	52°F	33%	Unlimited	30.16 →	From NNE 9mph
12:55 PM	Partly Cloudy 84°F	83°F	50°F	30%	Unlimited	30.15 ↓	From N 12mph
1:47 PM	Partly Cloudy 84°F	83°F	50°F	30%	Unlimited	30.14 ↓	From NNE 12mph
2:45 PM	Sunny 88°F	87°F	[illegible]	29%	Unlimited	30.12 ↓	From NE [illegible]

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Special Offers in East Chic

3:47 PM	Sunny 88°F	87°F	52°F	29%	Unlimited	30.10 ↓	From ENE 14mph
4:45 PM	Sunny 84°F	83°F	52°F	33%	Unlimited	30.10 →	From ENE 14mph
5:45 PM	Sunny 82°F	82°F	54°F	37%	Unlimited	30.08 ↓	From ENE 14mph
6:50 PM	Sunny 82°F	82°F	54°F	37%	Unlimited	30.08 →	From ENE 14mph
7:50 PM	Sunny 79°F	78°F	54°F	42%	Unlimited	30.08 →	From ENE 9mph
Sunset at 8:25 PM							
8:50 PM	Clear 75°F	75°F	55°F	50%	Unlimited	30.09 ↑	Variable 7mph
9:45 PM	Clear 68°F	68°F	59°F	73%	Unlimited	30.10 ↑	Variable 6mph

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Interstate 8

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Tips to gro yard in hot weather.

Driving Weather
Check curr conditions

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Site: Indiana Harbor
PN 0302414
Date: 7/10/05
Page: 1 of 1

SAMPLING DATA SHEET

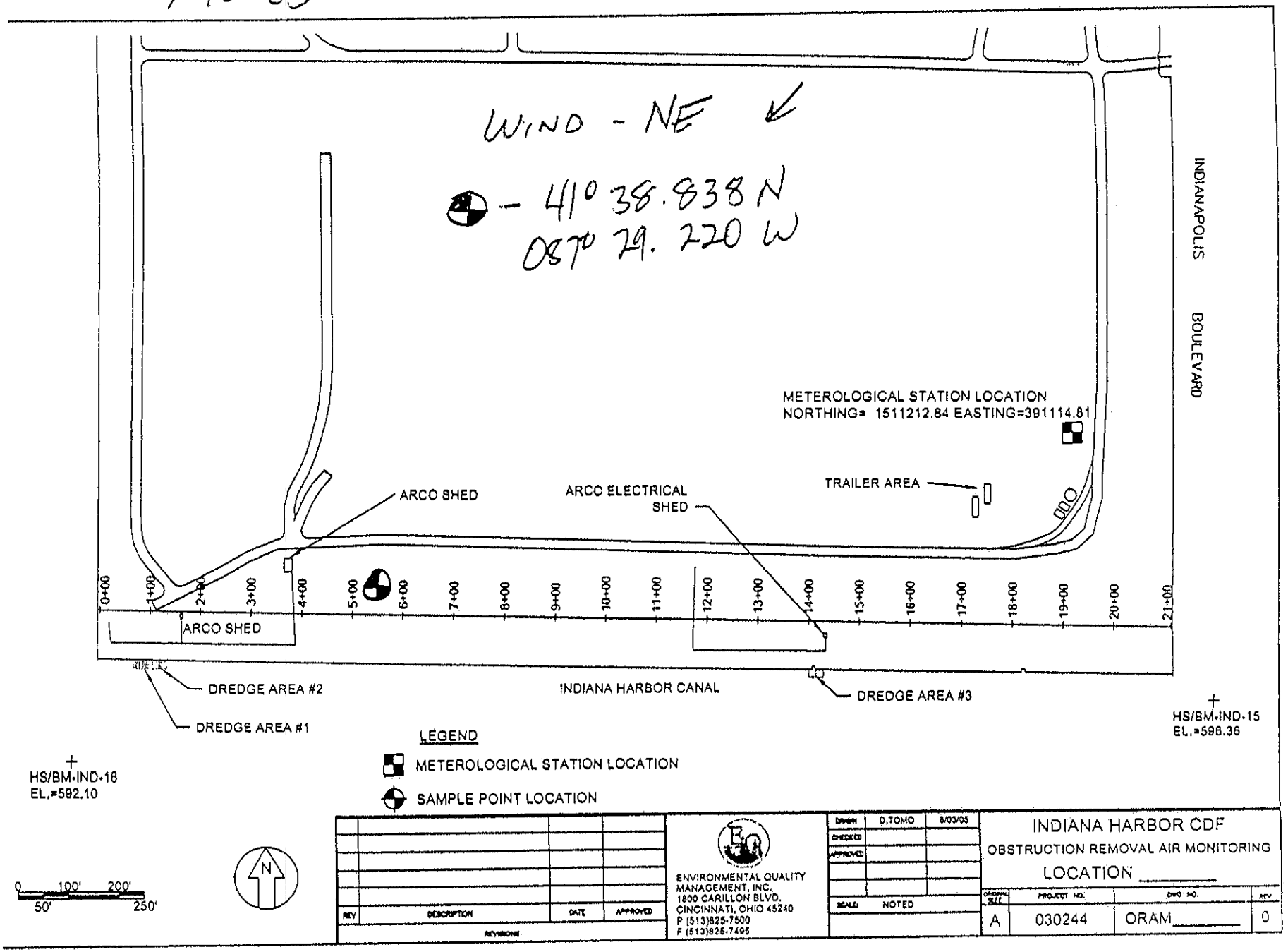
Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 071005					07:00	07:00	24hr	6
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: N.S.A Dredge material on site
Weather conditions: Sunny, Hot, Humid
Analytical lab: STL COC Number: EQ 13157

* No sample (High Vol.) for PCB + PAH today, pump down

7-10-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

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1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
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DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

7-10-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Dennis Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear 59°F	59°F	55°F	88%	Unlimited	30.11	calm
Sunrise at 5:25 AM							
5:45 AM	Sunny 57°F	57°F	55°F	94%	Unlimited	30.12 ↑	calm
6:50 AM	Sunny 70°F	70°F	63°F	78%	Unlimited	N/A	calm
7:55 AM	Sunny 75°F	76°F	59°F	57%	Unlimited	30.15	calm
8:50 AM	Sunny 81°F	81°F	57°F	45%	Unlimited	30.16 ↑	calm
9:57 AM	Sunny 84°F	84°F	54°F	35%	Unlimited	30.16 →	calm
10:49 AM	Sunny 86°F	85°F	50°F	29%	Unlimited	30.16 →	calm
11:45 AM	Sunny 90°F	89°F	52°F	27%	Unlimited	30.16 →	calm
12:50 PM	Sunny 91°F	91°F	55°F	29%	Unlimited	30.15 ↓	From N 9mph
1:50 PM	Partly Cloudy 90°F	89°F	57°F	33%	Unlimited	30.13 ↓	From NNE 9mph
2:50 PM	Sunny 91°F	91°F	55°F	29%	Unlimited	30.12 ↓	From NNE 9mph
3:54 PM	Sunny 88°F	87°F	54°F	31%	Unlimited	30.11 ↓	From NNE 9mph

Student Loan Fact #18

Student loan interest rates are lowest point in history. By using **Student Consolidation Loan,** y guarantee your **interest rates** w **increase** again.

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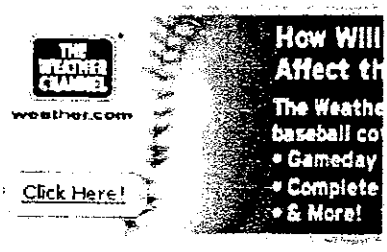

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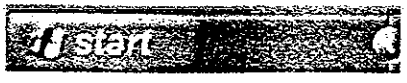

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4:45 PM	Sunny 88°F	88°F	57°F	35%	Unlimited	30.09 ↓	From NNE 9mph
5:50 PM	Sunny 84°F	84°F	55°F	37%	Unlimited	30.07 ↓	From NE 9mph
6:50 PM	Sunny 84°F	84°F	54°F	35%	Unlimited	30.07 →	From NE 9mph
7:50 PM	Partly Cloudy 81°F	80°F	54°F	39%	Unlimited	30.07 →	From ENE 9mph
Sunset at 8:25 PM							
8:50 PM	Partly Cloudy 77°F	77°F	57°F	50%	Unlimited	30.08 ↑	From ENE 9mph
9:49 PM	Clear 70°F	70°F	59°F	68%	Unlimited	30.08 →	From NNE 7mph

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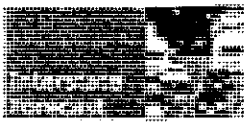

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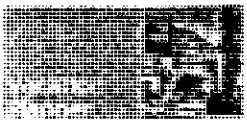
Summer Adventure



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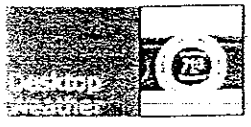

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Weather a

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**84°F**	**61°F**	**N/A in**
Averages	**84°F**	**66°F**	--
Records	**100°F** (1989)	**55°F** (1978)	--

Sunrise: **5:25 AM**

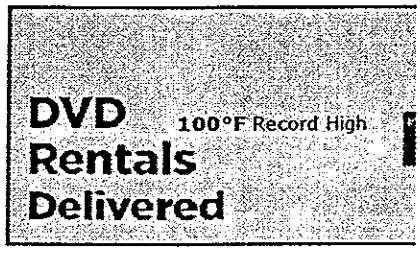
Sunset: **8:25 PM**

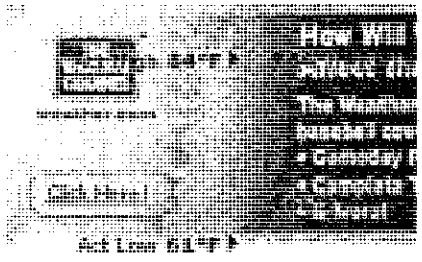
Waxing Crescent

On The Spot Weather

Choose Location

Yesterday's Reported Conditions





55°F Record Low

Today in East Chicago

Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**55°F**	**NaN in**
Average	**84°F**	**66°F**	--
Records	**102°F** (1991)	**51°F** (1975)	--

Averages and Records

Check daily averages for the entire month

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- Parks & recreation area forecast
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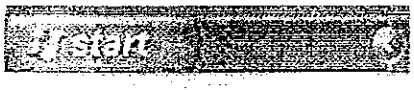

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitila Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.038	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.068	0.480	0.150	0.075	0.160	0.050	0.100	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.018	0.100	0.023	0.021	0.042	0.010	0.024	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.220	0.710	0.188	0.225	0.250	0.066	0.253	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.070	0.370	0.085	0.078	0.139	0.032	0.091	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130		0.000	0.092		0.000	0.068
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096		0.000	0.070		0.000	0.053

Semi Volitiles

Week of 06/13/05

Parameter	Limit	6/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	2.498	994.9	620	0.623	2.351	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	1875.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.379	994.9	ND	0.251	0.380	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.375	994.9	ND	0.251	0.377	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.783	994.9	1200	1.206	1.733	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.226	1018.9	3100	3.042	3.228	994.9	3400	3.417	3.465	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.266	1018.9	15000	14.722	9.271	994.9	10000	10.051	10.564	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.690
Phenanthrene	9376.0	990.7	14000	14.131	11.562	986.1	8400	8.518	9.762	1018.9	8800	8.637	9.572	994.9	8300	8.343	9.825	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.769
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.221	994.9	1000	1.005	1.235	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.270

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.680
Anthracene	9376.0	1010.0	650	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.786
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7	26000	24.605	23.125	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.581
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3		0.000	13.072	994.8		0.000	8.712	961.1		0.000	7.325			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3		0.000	1.981	994.8		0.000	0.475	961.1		0.000	0.332	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	961.3	500	0.520	0.663	952.3		0.000	0.464	994.8		0.000	0.206	961.1		0.000	0.153	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	961.3	ND	0.260	0.335	952.3		0.000	0.285	994.8		0.000	0.235	961.1		0.000	0.183	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3		0.000	5.494	994.8		0.000	3.631	961.1		0.000	2.811	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	961.3	16000	16.644	15.212	952.3		0.000	12.617	994.8		0.000	9.049	961.1		0.000	7.283	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3		0.000	0.204	994.8		0.000	0.154	961.1		0.000	0.101	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	961.3	31000	32.248	36.110	952.3		0.000	32.117	994.8		0.000	24.190	961.1		0.000	15.150	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3		0.000	29.148	994.8		0.000	19.239	961.1		0.000	15.034	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	961.3	4200	4.369	3.677	952.3		0.000	2.858	994.8		0.000	1.907	961.1		0.000	1.487	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR COF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/13/2005																											
		6/13/2005				6/14/2005				6/15/2005				6/16/2005				6/17/2005				6/18/2005				6/19/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.023	994.9	28000	0.028	0.026	1060.6	6900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15		990.7	7600	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.005	994.9	4900	0.005	0.006	1060.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.026	994.9	35000	0.035	0.028	1060.6	4600	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024	994.9	22000	0.022	0.023	1060.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.028	1018.9	8000	0.008	0.023	994.9	23000	0.023	0.022	1060.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1060.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118		990.7	5600	0.006	0.006	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003	994.9	2000	0.002	0.003	1060.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001	994.9	ND	0.001	0.001	1060.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000	994.9	ND	0.001	0.000	1060.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035			0.000	0.035			0.000	0.035			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.039	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6900	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.009	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.062	1005.4	48000	0.048	0.065	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	56000	0.054	0.039
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4600	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5600	0.005	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	0	0.000	0.040	961.1	0	0.000	0.032		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		961.3	6700	0.007	0.005	952.3	8600	0.009	0.043	994.8		0.000	0.008	961.1		0.000	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8		0.000	0.040	961.1		0.000	0.033	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8		0.000	0.031	961.1		0.000	0.025	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8		0.000	0.033	961.1		0.000	0.028	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8		0.000	0.001	961.1		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8		0.000	0.003	961.1		0.000	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8		0.000	0.000	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8		0.000	0.002	961.1		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 236

DATE 12 Jul 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher removed the four northern segments of the coffer damat area two. A small fire started and was quickly put out. Note the detailed discussion under general comments. EQ continued with drying of dredge sediment and loaded it in roll off boxes. The blower for the air sampler was received and installed. The air sampler is now operational. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, five personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
A small fire occured in the canal and was quickly extinguished. No injuries or property damage occurred. Thatcher was in the process of removing the four segments of the 14 inch pipes in area two. These were the northern portions of the pipes outside of the coffer dam. They were torch cutting the steel supports. They had cut the supports for the eastern pipe and removed this pipe. A small amount of oil (about a quart), was relased from this pipe as it was removed. This oil ignited when they were cutting the supports for the next pipe. The fire was put out with a portable fire extinguisher from the work boat. EQ directed Thatcher to remove all three of the remaining pipes as a group. This was done and the pipes were cut on land.

Verbal Instructions given by Government:
EQ discussed our actions regarding the air sampler failure, fire, incorrect air regulator setting, and repairs to the turbidity curtain. USACE agreed that our actions were timely and correct.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 236

DATE 12 Jul 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		2.0	16.0
Total hours worked to date:	3,566.0	Total	10.0	82.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRO2136	Small Excavator		4.0	4.0
Total operating hours to date: 698.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/13/5		7-13-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:06:43 12-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.059 mg/m³
Time at maximum: 10:08:17 Jul 12
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:06:43 Jul 12
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	12-Jul	10:11:43	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:34:55 12-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.488 mg/m³
Time at maximum: 11:37:05 Jul 12
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:34:55 Jul 12
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	12-Jul	11:39:55	0.023

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:02:38 12-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.688 mg/m³
Time at maximum: 14:04:05 Jul 12
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:02:38 Jul 12
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	12-Jul	14:07:38	0.043

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:24:15 12-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.247 mg/m³
Time at maximum: 15:28:29 Jul 12
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:26:15 Jul 12
Overall Avg Conc: 0.004 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	12-Jul	15:29:15	0.024

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13159

Project No.	Project Name		
030244	Indiana Harbor Obstruction Removal		
Samplers/Affiliation: (Print Name and Sign) Ben Cetany / EQM		Lab P.O. No: 9132	

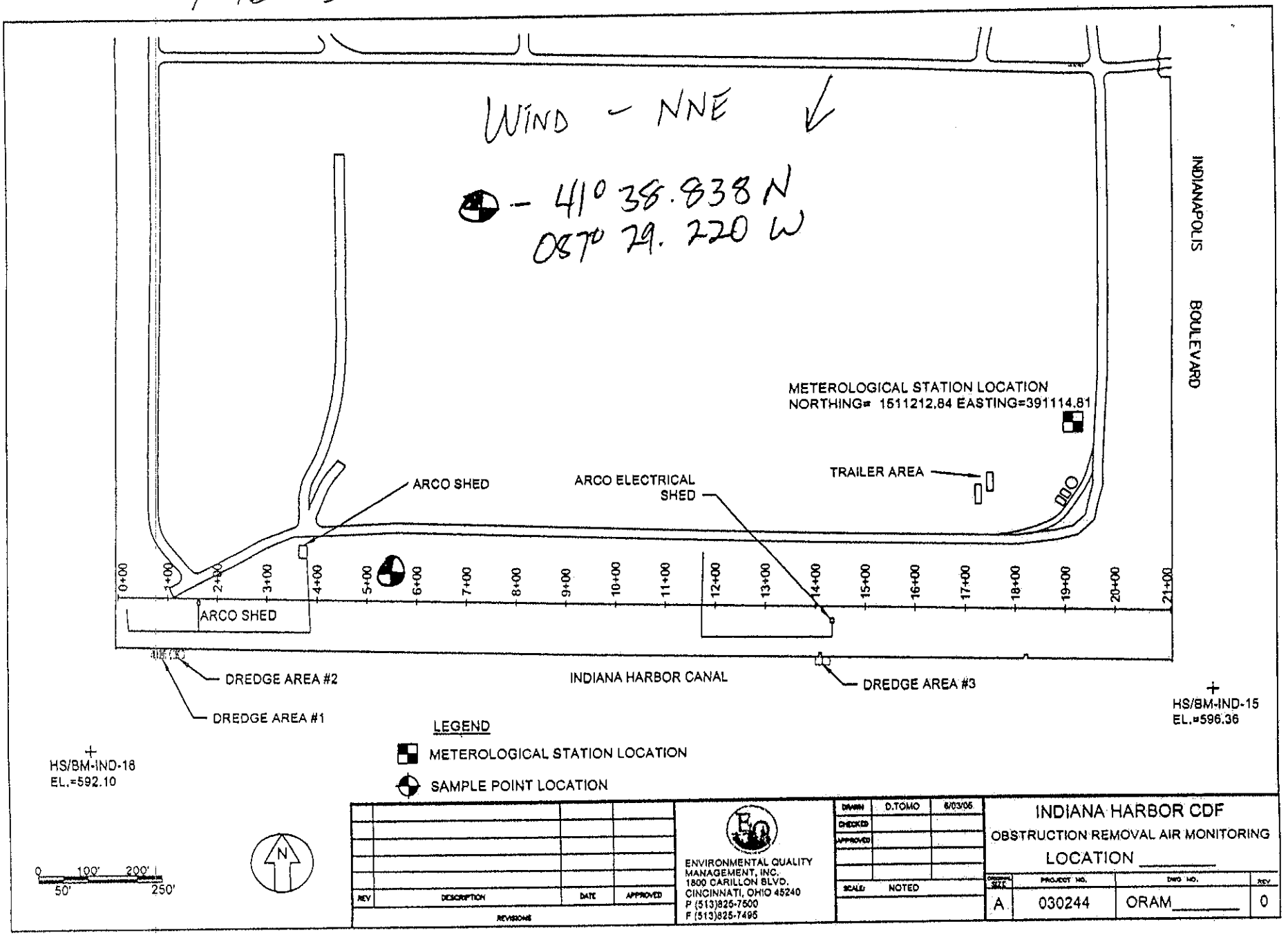
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 071205	7-12-05	21hr	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Ben Cetany	7-13-05	9:15		7-13-05	9:15	STL- Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-Day 7/21/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-12-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING DATA SHEET

Site: Indiana Harbor
PN 030244
Date: 7/12/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr.	Air Volume, liters
*HS/VOL 071205						07:00	07:00	24hr.	6C
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: LOAD SOIL INTO BOXES, TRUCK DOWN TOWARD COFFER DAM
Weather conditions: Overcast, Light Rain - NNE WIND
Analytical lab:
COC Number: 13159

* NO High Vol. Sample TODAY, MOTOR on Sampler is DOWN

SAMPLING EQUIPMENT CALIBRATION LOG

te Name: Indiana Harbor Obstruction Removal Project No.: 038244

ATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
2751 2-12-05	Multi-Rae	[illegible]	Freshair multigas	Calibrated	Overcast, Rain NE WIND
2-12-05 0814	PDR	[illegible]	Zero Calibration	Cal OK	"

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-12-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

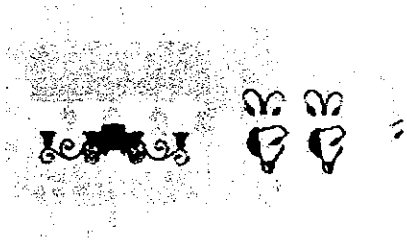
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

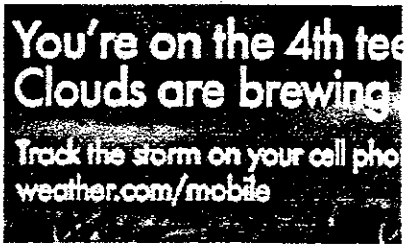
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:45 AM	Light Rain 73°F	73°F	68°F	83%	7.0 miles	29.94	Variable 3mph
	Sunrise at 5:27 AM						
5:45 AM	Light Rain 73°F	73°F	68°F	83%	7.0 miles	29.93 ↓	Variable 7mph
6:45 AM	Cloudy 75°F	78°F	70°F	83%	10.0 miles	29.93 →	Variable 7mph
7:45 AM	Cloudy 75°F	77°F	68°F	78%	10.0 miles	29.93 →	From NNE 9mph
8:50 AM	Cloudy 79°F	81°F	68°F	69%	10.0 miles	29.93 →	From NNE 9mph
9:45 AM	Cloudy 79°F	81°F	68°F	69%	10.0 miles	29.93 →	From NNE 9mph
10:50 AM	Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.93 →	From NNE 9mph
12:50 PM	Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.93 →	From NNE 12mph
1:50 PM	Mostly Cloudy 81°F	84°F	70°F	70%	10.0 miles	29.91 ↓	From NNE 12mph
2:45 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.90 ↓	From NNE 12mph
3:50 PM	Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.90 →	From N 14mph
4:50 PM	Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.91 ↑	Variable 7mph





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- Allergy outlook & pollen counts
- Lawn & garden planting tips
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start

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5:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	10.0 miles	29.89 ↓	From NNE 9mph
6:50 PM	Mostly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.89 →	From NNE 9mph
7:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.89 →	From NNE 12mph
Sunset at 8:24 PM							
8:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	10.0 miles	29.89 →	From NE 9mph
9:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.89 →	From NE 12mph

Back to previous page

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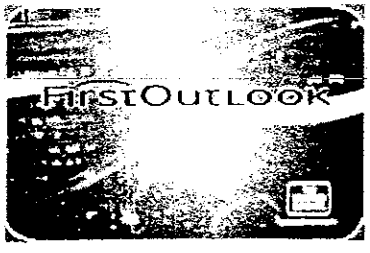

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

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here!

Past Weather as reported at

Gary

Yesterday hourly reports

	High	Low	Precip
Actuals	**81°F**	**73°F**	**N/A in**
Averages	**84°F**	**66°F**	--
Records	**100°F** (1966)	**56°F** (1975)	--

Sunrise: **5:25 AM**

Sunset: **8:24 PM**

Waxing Crescent

On The Spot Weather

Choose Location

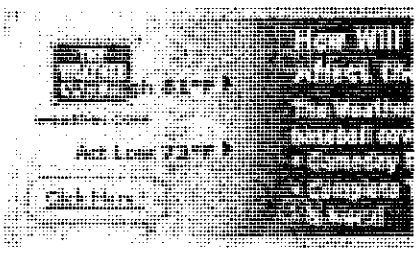
Yesterday's Reported Conditions

100°F Record High

56°F Record Low

Student Loan Fact #249

Student loans such as the Stafford lo interest rates until the borrower uses th **Student Consolidation Loan**. Now is consolidate and fix your student loan in Your rate may be fixed as low as 3.45% payments reduced by **54%**. Click Here t



Month-to-Date

	High	Low	Precip
Month to date	**91°F**	**55°F**	**NaN in**
Average	**84°F**	**66°F**	—
Records	**102°F** (1991)	**51°F** (1975)	—

Averages and Records

Check daily averages for the entire month

July GO

Today in East Chicago

- Rush hour traffic report
- Lawn & garden planting tips
- Allergy outlook & pollen counts
- Parks & recreation area forecast
- Mosquito activity levels

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OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Week of 06/13/05

Parameter	Limit	6/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2800	2.624	2.511	988.1	3100	3.144	2.396	1018.9	2600	2.552	2.498
Acenapthylene	1875.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	920	0.903	0.379
Anthracene	9376.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(ghi)perylene		990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(e)pyrene		990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Chrysene	355.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	900	0.883	0.375
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Flouranthene	1250.0	990.7	2700	2.725	2.233	988.1	1400	1.420	1.899	1018.9	1500	1.472	1.783
Flourene	1250.0	990.7	4000	4.037	3.028	988.1	3200	3.245	3.228	1018.9	3100	3.042	3.228
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	988.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Napthalene	30.0	990.7	6300	6.359	7.801	988.1	6100	6.186	7.268	1018.9	15000	14.722	9.271
Phenanthrene	9376.0	990.7	14000	14.131	11.562	988.1	8400	8.518	9.762	1018.9	8800	8.637	9.572
Pyrene	938.0	990.7	1600	1.615	1.180	988.1	910	0.923	1.200	1018.9	1400	1.374	1.221

Parameter	6/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	994.9	620	0.623	2.351	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.548	1054.4	8600	8.156	4.550
Acenapthylene	994.9	ND	0.251	0.380	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.550
Anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.704
Benzo(a)anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(b)flouranthene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(k)flouranthene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.306
Benzo(ghi)perylene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(a)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Benzo(e)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Chrysene	994.9	ND	0.251	0.377	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	620	0.588	0.439
Dibenzo(a,h)anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Flouranthene	994.9	1200	1.208	1.733	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.434
Flourene	994.9	3400	3.417	3.465	1050.6	1300	1.237	2.996	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.205
Indene(1,2,3-cd)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.241
Napthalene	994.9	10000	10.051	10.564	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.690
Phenanthrene	994.9	8300	8.343	9.825	1050.6	2900	2.760	8.478	1070.2	15000	14.018	8.455	1054.4	37000	35.091	13.769
Pyrene	994.9	1000	1.005	1.235	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.270

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.556	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8800	8.554	8.390	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	23.125
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274
Pyrene	938.0	1010.0	2700	2.673	1.630	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.463	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.925	1011.5	880	0.870	2.580
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.786
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	1001.7	ND	0.250	0.305	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	880	0.852	0.385
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1001.7	13000	12.978	10.902	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.880	1011.5	44000	43.500	34.581
Phenanthrene	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.842	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.656	43.248	994.8	50000	50.308	47.182
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.192	33.032
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	961.1		0.000	13.307			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	961.1		0.000	0.845	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	961.1		0.000	0.323	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	961.1		0.000	0.289	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	961.1		0.000	0.394	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	961.1		0.000	5.485	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	961.1		0.000	12.216	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	961.1		0.000	38.142	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	961.1		0.000	28.827	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	961.1		0.000	2.986	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
DESTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/13/2005

Parameter	Limit	6/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		990.7	36000	0.036	0.031	986.1	17000	0.017	0.026	1018.9	21000	0.021	0.023
PCB 15		990.7	7500	0.008	0.006	986.1	3700	0.004	0.006	1018.9	2800	0.003	0.006
PCB18		990.7	40000	0.040	0.032	986.1	26000	0.026	0.030	1018.9	13000	0.013	0.026
PCB28		990.7	36000	0.036	0.034	986.1	18000	0.018	0.029	1018.9	8000	0.008	0.024
PCB31		990.7	36000	0.036	0.033	986.1	18000	0.018	0.028	1018.9	8000	0.008	0.023
PCB77		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB81		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB105		990.7	2600	0.003	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB114		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB118		990.7	5600	0.006	0.005	986.1	1900	0.002	0.004	1018.9	1200	0.001	0.003
PCB123		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB126		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB156		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB157		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB167		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB169		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB170		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
PCB180		990.7	2200	0.002	0.002	986.1	ND	0.001	0.002	1018.9	ND	0.000	0.001
PCB189		990.7	ND	0.001	0.000	986.1	ND	0.001	0.000	1018.9	ND	0.000	0.000
Total	1000.0			0.173	0.117			0.000	0.113			0.000	0.035

Parameter	6/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1050.6	5900	0.006	0.022	1070.2	23000	0.021	0.019	1054.4	46000	0.044	0.024
PCB 15	1050.6	ND	0.000	0.004	1070.2	4800	0.004	0.003	1054.4	12000	0.011	0.005
PCB18	1050.6	4600	0.004	0.024	1070.2	30000	0.028	0.021	1054.4	90000	0.085	0.033
PCB28	1050.6	3300	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	46000	0.044	0.018
PCB31	1050.6	2900	0.003	0.018	1070.2	16000	0.015	0.013	1054.4	51000	0.048	0.019
PCB77	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB81	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB105	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1900	0.002	0.001
PCB114	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB118	1050.6	ND	0.000	0.002	1070.2	1300	0.001	0.001	1054.4	4300	0.004	0.002
PCB123	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB126	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB156	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB157	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB167	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB169	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB170	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
PCB180	1050.6	ND	0.000	0.001	1070.2	ND	0.000	0.000	1054.4	1100	0.001	0.001
PCB189	1050.6	ND	0.000	0.000	1070.2	ND	0.000	0.000	1054.4	ND	0.000	0.000
Total			0.000	0.035			0.000	0.000			0.000	0.000

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	56000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	46000	0.043	0.039
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.056	1056.7	71000	0.067	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059

Parameter	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1001.7	7900	0.008	0.009	1009.2	6200	0.006	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18	1001.7	59000	0.059	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28	1001.7	44000	0.044	0.037	1009.2	36000	0.036	0.035	951.3	25000	0.026	0.032	1011.5	65000	0.064	0.038
PCB31	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1001.7	ND	0.000	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	0	0.000	0.040
PCB 15		961.3	6700	0.007	0.056	952.3	8600	0.009	0.043	994.8		0.000	0.008
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8		0.000	0.040
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.036	994.8		0.000	0.031
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8		0.000	0.033
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8		0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8		0.000	0.000
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8		0.000	0.003
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8		0.000	0.000
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8		0.000	0.000
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8		0.000	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	961.1	0	0.000	0.032		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	961.1		0.000	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	961.1		0.000	0.033	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	961.1		0.000	0.025	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	961.1		0.000	0.028	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	961.1		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	961.1		0.000	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	961.1		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	961.1		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	ug/m3	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.360	0.113	0.113	0.180	0.050	0.081	0.380	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.068	0.480	0.150	0.075	0.160	0.050	0.100	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.018	0.100	0.023	0.021	0.042	0.010	0.024	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.220	0.710	0.188	0.225	0.250	0.066	0.253	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.070	0.370	0.085	0.078	0.139	0.032	0.091	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
		Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day	Raw	Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130		0.000	0.092		0.000	0.068
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096		0.000	0.070		0.000	0.053

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 237

DATE 13 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher set the false work and template for the coffer dam at area 1. They also placed the ssp for the south wall of the coffer dam Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, five personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 237

DATE 13 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		1.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		3.0	24.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	3,648.0	Total	10.0	82.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 714.0		Total	16.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	7/14/5	[signature]	7-14-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:19:25 13-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:19:25 Jul 13
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:19:25 Jul 13
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jul	09:24:25	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 12:09:02 13-Jul
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.179 mg/m³
Time at maximum: 12:09:20 Jul 13
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:09:02 Jul 13
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jul	12:14:02	0.006

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:16:27 13-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.734 mg/m³
Time at maximum: 14:16:29 Jul 13
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 14:16:58 Jul 13
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jul	14:21:27	0.028

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:20:59 13-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.526 mg/m³
Time at maximum: 15:21:26 Jul 13
Max STEL Concentration: 0.021 mg/m³
Time at max STEL: 15:21:29 Jul 13
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	13-Jul	15:25:59	0.065

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131

Project No.	Project Name
030244	Indiana Harbor Construction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lotang [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15										
VOC 071305	7-13-05	24hr.	Sidewalk Canister	6L	1	X										

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-14-05	8AC	[signature]	7/14/05	845
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick upon Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7-22-05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131

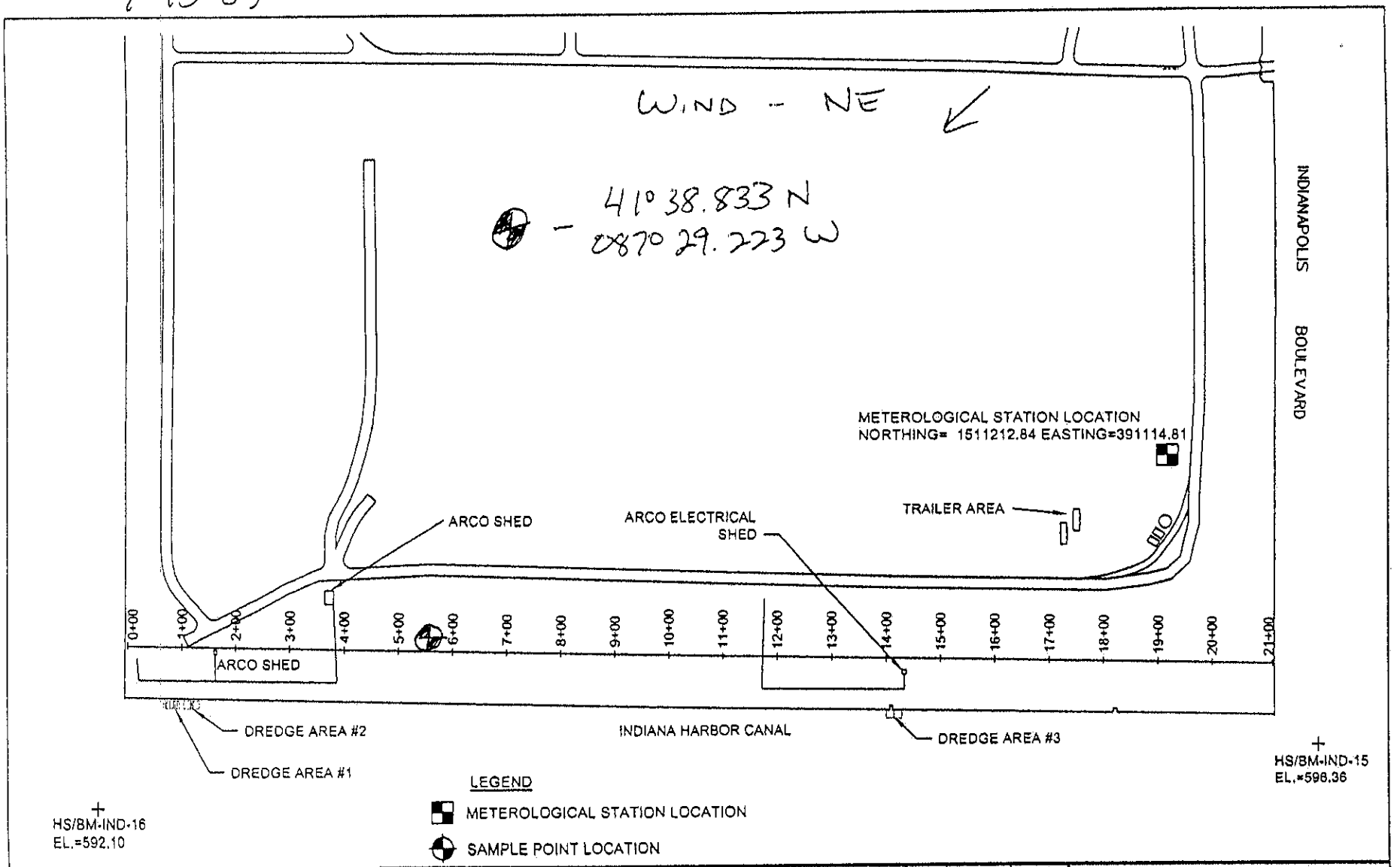
Project No.	Project Name																		
030244	Indiana Harbor Obstruction Removal																		
Samplers/Affiliation: (Print Name and Sign) Ben Letany				Lab P.O. No: 9132															
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS													
						70-13/8270	70-13/1668												
Semi-Vol 071305	7-13-05	2:14pm	Filter	990.7 L	2	x	x												

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Ben Letany	7-14-05	8:15	Jerry Hubre	7/14/05	8:15	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 7/22/05	Report To: Jackie Dorn	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-13-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG. NO.	REV
A	030244	ORAM_____	0

Site:	Indiana Harbor
PN	
Date:	7 / 13 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Ehc 071305					07:00	07:00	24	6
TO-13	Sami-bl 071305					07:00	07:00	24	990.7
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Build coffer dam, move pipe to stockpile

Weather conditions: Overcast, hot, humid, NE wind

Analytical lab: STL COC Number: EQ 13160, 13161

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Fullerton Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-13-05 0811	PDR	Ben [illegible]	Zero Calibration	"Cal ok"	Overcast, Hot, NE WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	East Chicago	Date:	12-Jul-05
Sampler:	TE-1000	Tech:	Ben Letany

CONDITIONS

Sampler Elevation (feet):	583		
Sea Level Pressure (in Hg):	29.87	Corrected Pressure (mm Hg):	744
Temperature (deg F):	81	Temperature (deg K):	300
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	755
Seasonal Temp. (deg F):	70	Seasonal Temp. (deg K):	294

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.68477
Model:	TE-5040	Qstd Intercept:	0.03657
Serial#:	434	Date Certified:	3/8/2005

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.00	0.274	70.0	8.25	Slope =	30.1591
2	5.30	0.257	60.0	7.64	Intercept =	~~-0.8855~~
3	4.50	0.237	50.0	6.97	Corr. coeff =	0.9986
4	3.55	0.210	40.0	6.23		
5	2.65	0.181	30.0	5.40	# of Observations	5

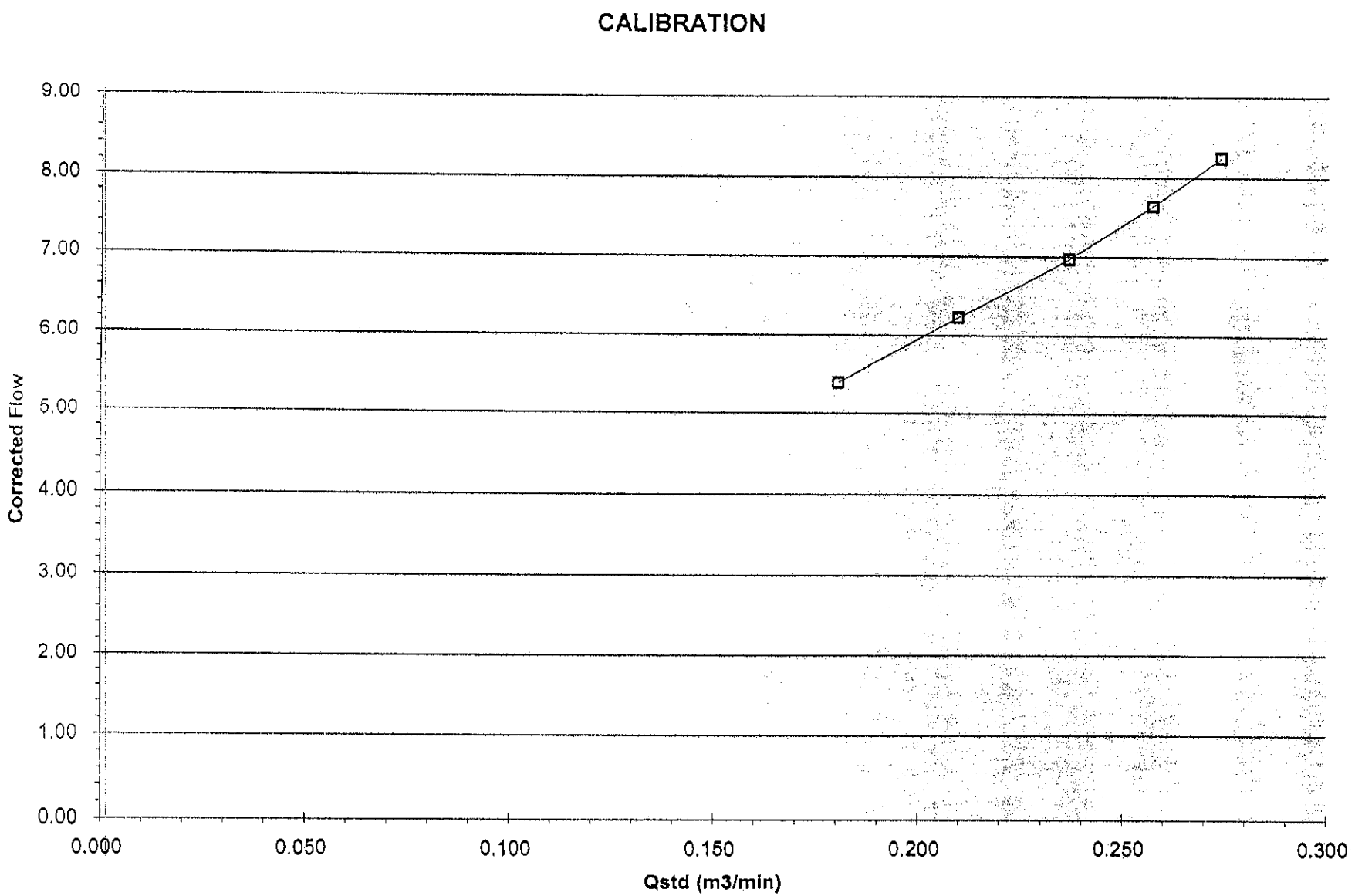
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

.9900 + is Recommended by Manufacturer

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure


CALIBRATION
Corrected Flow
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.000
0.050
0.100
0.150
0.200
0.250
0.300
Qstd (m3/min)

7-13-05

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Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Cloudy 75°F	79°F	73°F	94%	7.0 miles	29.89	From NE 9mph
Sunrise at 5:27 AM							
5:48 AM	Cloudy 73°F	73°F	70°F	88%	7.0 miles	29.90 ↑	From NNE 9mph
7:47 AM	Cloudy 75°F	79°F	73°F	94%	5.0 miles	29.91 ↑	From NNE 12mph
8:45 AM	Cloudy 77°F	81°F	73°F	89%	7.0 miles	29.91 →	From NE 12mph
9:50 AM	Mostly Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.91 →	From NE 12mph
10:50 AM	Mostly Cloudy 81°F	86°F	73°F	79%	10.0 miles	29.93 ↑	From NNE 9mph
11:50 AM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.92 ↓	From NNE 9mph
12:50 PM	Cloudy 79°F	83°F	73°F	83%	4.0 miles	29.92 →	From N 14mph
1:50 PM	Mostly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.91 ↓	From N 12mph
2:50 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.91 →	From NNE 14mph
3:50 PM	Mostly Cloudy 81°F	84°F	70°F	70%	10.0 miles	29.89 ↓	From N 14mph
4:50 PM	Partly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.89 →	From N 14mph

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5:50 PM	Partly Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.88 ↓	From N 14mph
6:45 PM	Partly Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.87 ↓	From N 14mph
7:54 PM	Partly Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.88 ↑	From N 12mph
Sunset at 8:23 PM							
8:50 PM	Partly Cloudy 77°F	80°F	70°F	78%	10.0 miles	29.98 ↑	From N 12mph
9:49 PM	Mostly Cloudy 77°F	80°F	72°F	83%	10.0 miles	29.89 ↓	From NNE 12mph

Avg. 78° 29.90

Back to previous page

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INDIANA HARBOR/CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 060605																				
		6/6/2005			6/7/2005			6/8/2005			6/9/2005			6/10/2005			6/11/2005			6/12/2005		
	ug/m3 Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.360	0.113	0.113	0.160	0.050	0.081	0.360	0.113	0.092	0.260	0.081	0.089	0.140	0.044	0.080	0.086	0.027	0.063	0.280	0.088	0.070
Ethyl Benzene	3565.0	0.100	0.023	0.023	0.045	0.010	0.017	0.099	0.023	0.019	0.081	0.019	0.019	0.036	0.008	0.017	0.033	0.008	0.014	0.091	0.021	0.016
Toluene	9065.0	0.820	0.218	0.218	0.420	0.111	0.165	0.770	0.204	0.178	0.710	0.188	0.180	0.380	0.101	0.165	0.170	0.045	0.130	0.430	0.114	0.131
Xylene	62510.0	0.374	0.086	0.086	0.167	0.038	0.062	0.361	0.083	0.069	0.310	0.071	0.070	0.133	0.031	0.062	0.090	0.021	0.049	0.343	0.079	0.057

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.068	0.480	0.150	0.075	0.160	0.050	0.100	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.018	0.100	0.023	0.021	0.042	0.010	0.024	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.220	0.710	0.188	0.225	0.250	0.066	0.253	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.070	0.370	0.085	0.078	0.139	0.032	0.091	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130		0.000	0.092		0.000	0.068
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022		0.000	0.016		0.000	0.011
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188		0.000	0.126		0.000	0.091
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096		0.000	0.070		0.000	0.053

AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Week of 06/13/05

Parameter	Limit	6/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	990.7	2600	2.624	2.511	986.1	3100	3.144	2.398	1018.9	2600	2.552	2.498
Acenapthylene	1875.0	990.7	ND	0.262	0.248	986.1	ND	0.254	0.247	1018.9	920	0.903	0.379
Anthracene	9376.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(a)anthracene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(b)flouranthene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(k)flouranthene	35.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(ghi)perylene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(a)pyrene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Benzo(e)pyrene		990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Chrysene	355.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	900	0.883	0.375
Dibenzo(a,h)anthracene	0.4	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Flouranthene	1250.0	990.7	2700	2.725	2.233	986.1	1400	1.420	1.899	1018.9	1500	1.472	1.783
Flourene	1250.0	990.7	4000	4.037	3.628	986.1	3200	3.245	3.228	1018.9	3100	3.042	3.228
Indene(1,2,3-cd)pyrene	4.0	990.7	ND	0.252	0.248	986.1	ND	0.254	0.247	1018.9	ND	0.245	0.247
Napthalene	30.0	990.7	6300	6.359	7.801	986.1	6100	6.186	7.268	1018.9	15000	14.722	9.271
Phenanthrene	9376.0	990.7	14000	14.131	11.582	986.1	8400	8.518	9.762	1018.9	8800	8.637	9.572
Pyrene	938.0	990.7	1600	1.615	1.180	986.1	910	0.923	1.200	1018.9	1400	1.374	1.221

Parameter	6/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	994.9	620	0.623	2.351	1050.6	1200	1.142	2.017	1070.2	11000	10.278	3.648	1054.4	8600	8.156	4.55
Acenapthylene	994.9	ND	0.251	0.380	1050.6	ND	0.238	0.380	1070.2	1200	1.121	0.553	1054.4	ND	0.237	0.55
Anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	6300	5.887	1.375	1054.4	2000	1.897	1.70
Benzo(a)anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Benzo(b)flouranthene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Benzo(k)flouranthene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	590	0.560	0.30
Benzo(ghi)perylene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Benzo(a)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Benzo(e)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Chrysene	994.9	ND	0.251	0.377	1050.6	ND	0.238	0.376	1070.2	ND	0.234	0.372	1054.4	820	0.588	0.43
Dibenzo(a,h)anthracene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Flouranthene	994.9	1200	1.206	1.733	1050.6	ND	0.238	1.412	1070.2	1000	0.934	1.054	1054.4	3500	3.319	1.43
Flourene	994.9	3400	3.417	3.465	1050.6	1300	1.237	2.998	1070.2	12000	11.213	4.431	1054.4	7500	7.113	5.20
Indene(1,2,3-cd)pyrene	994.9	ND	0.251	0.249	1050.6	ND	0.238	0.248	1070.2	ND	0.234	0.244	1054.4	ND	0.237	0.24
Napthalene	994.9	10000	10.051	10.564	1050.6	4500	4.283	8.320	1070.2	13000	12.147	9.478	1054.4	34000	32.246	14.69
Phenanthrene	994.9	8300	8.343	9.625	1050.6	2900	2.760	8.478	1070.2	15000	14.016	8.455	1054.4	37000	35.091	13.76
Pyrene	994.9	1000	1.005	1.235	1050.6	ND	0.238	1.031	1070.2	950	0.888	0.886	1054.4	3000	2.845	1.27

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.398	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	23.125
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.57
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.825	1011.5	880	0.870	2.58
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.78
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Benzo(k)flouranthene	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Chrysene	1001.7	ND	0.250	0.399	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	860	0.652	0.38
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Flouranthene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.83
Flourene	1001.7	13000	12.978	10.962	1009.2	18000	17.838	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.34
Indene(1,2,3-cd)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.24
Napthalene	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.56
Phenanthrene	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.75
Pyrene	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.31

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.182
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	961.1		0.000	13.307			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0
Acenapthylene	961.1		0.000	0.845	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Anthracene	961.1		0.000	0.323	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(a)anthracene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(b)flouranthene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(k)flouranthene	961.1		0.000	0.289	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(ghi)perylene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(a)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Benzo(e)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Chrysene	961.1		0.000	0.394	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Dibenzo(a,h)anthracene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Flouranthene	961.1		0.000	5.485	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Flourene	961.1		0.000	12.216	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Indene(1,2,3-cd)pyrene	961.1		0.000	0.204	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Napthalene	961.1		0.000	38.142	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Phenanthrene	961.1		0.000	28.827	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0
Pyrene	961.1		0.000	2.986	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	56000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.039	1001.7	22000	0.022	0.039
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.045
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059

Parameter	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.009	1011.5	16000	0.016	0.009
PCB18	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.057
PCB28	1009.2	36000	0.036	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1009.2	1600	0.002	0.001	951.3	1500	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1009.2	3600	0.004	0.003	951.3	3900	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.067	951.1	22000	0.023	0.053
PCB 15		961.3	6700	0.007	0.055	952.3	8500	0.009	0.043	994.8	14000	0.014	0.010	951.1	6000	0.006	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	951.1	15000	0.016	0.040
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.039	951.1	21000	0.022	0.037
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	951.1	24000	0.025	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	951.1	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	951.1	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	951.1	1100	0.001	0.002
PCB114		961.3	ND	0.001	0.000	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	951.1	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	951.1	2600	0.003	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037

Parameter	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	983.2	6300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.026
PCB77	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033

Parameter	7/8/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.033			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 238 Page 1 of 2 DATE 14 Jul 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 72 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

Thatcher completed installation of the south, east and north walls of the coffer dam for area 1.set the false work and template for the coffer dam at area 1. Thatcher also completed removal of the fenders and accesories on the existing sheet sheet pile wall. USACE delivered the executed waste profile. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, ten personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:

Work proceeded without incident.

Verbal Instructions given by Government:

Ed Wise and Arthur Rundzaitis inspected the fenders in the area with the stone ballast. USACE indicated they did not want the stone completely removed to access the bottom fender. Rather EQ was to move a minimal amount of stone to access the fenders that were easily accessable.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 238

DATE 14 Jul 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	8.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	7.0	24.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	15.0	82.0

Total hours worked to date: 3,730.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	2.0	6.0
SN10003403	Loader	4.0	4.0
6CRC2136	Small Excavator	4.0	4.0
	Total	10.0	22.0

Total operating hours to date: 736.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/15/5		7-15-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:13:56 14-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 2.567 mg/m³
Time at maximum: 09:13:59 Jul 14
Max STEL Concentration: 0.035 mg/m³
Time at max STEL: 09:14:26 Jul 14
Overall Avg Conc: 0.060 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jul	09:18:56	0.108

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:35:27 14-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.036 mg/m³
Time at maximum: 11:37:08 Jul 14
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:35:27 Jul 14
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jul	11:40:27	0.005

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:12:16 14-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.167 mg/m³
Time at maximum: 13:13:58 Jul 14
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:12:16 Jul 14
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jul	13:17:16	0.009

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:06:12 14-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.335 mg/m³
Time at maximum: 15:11:04 Jul 14
Max STEL Concentration: 0.015 mg/m³
Time at max STEL: 15:11:12 Jul 14
Overall Avg Conc: 0.015 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	14-Jul	15:11:12	0.055

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13162

Project No.: 0307411

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lofaro Buffalo 1600

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
IHC 071405	7-14-05	23.5hr.	Sumo	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-15-05	900	[illegible]	[illegible]	900
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL. Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7/25/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13163

Project No.: 0307414

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Ben Lefany

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13 (5270)	TESTS: TO-13 (1668)
Semi-Vol 071405	7-14-05	23.5hr.	Filter	979.1 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	7-14-05	9:00		7/15/05	9:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Days 7/25/05

Report To: Jackie Dann

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	Indiana Harbor
PN	030244
Date:	7/14/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 071405					07:00	06:30	23.5	6L
TO-13	SemiVOC 071405					07:00	06:30	23.5	979.1L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

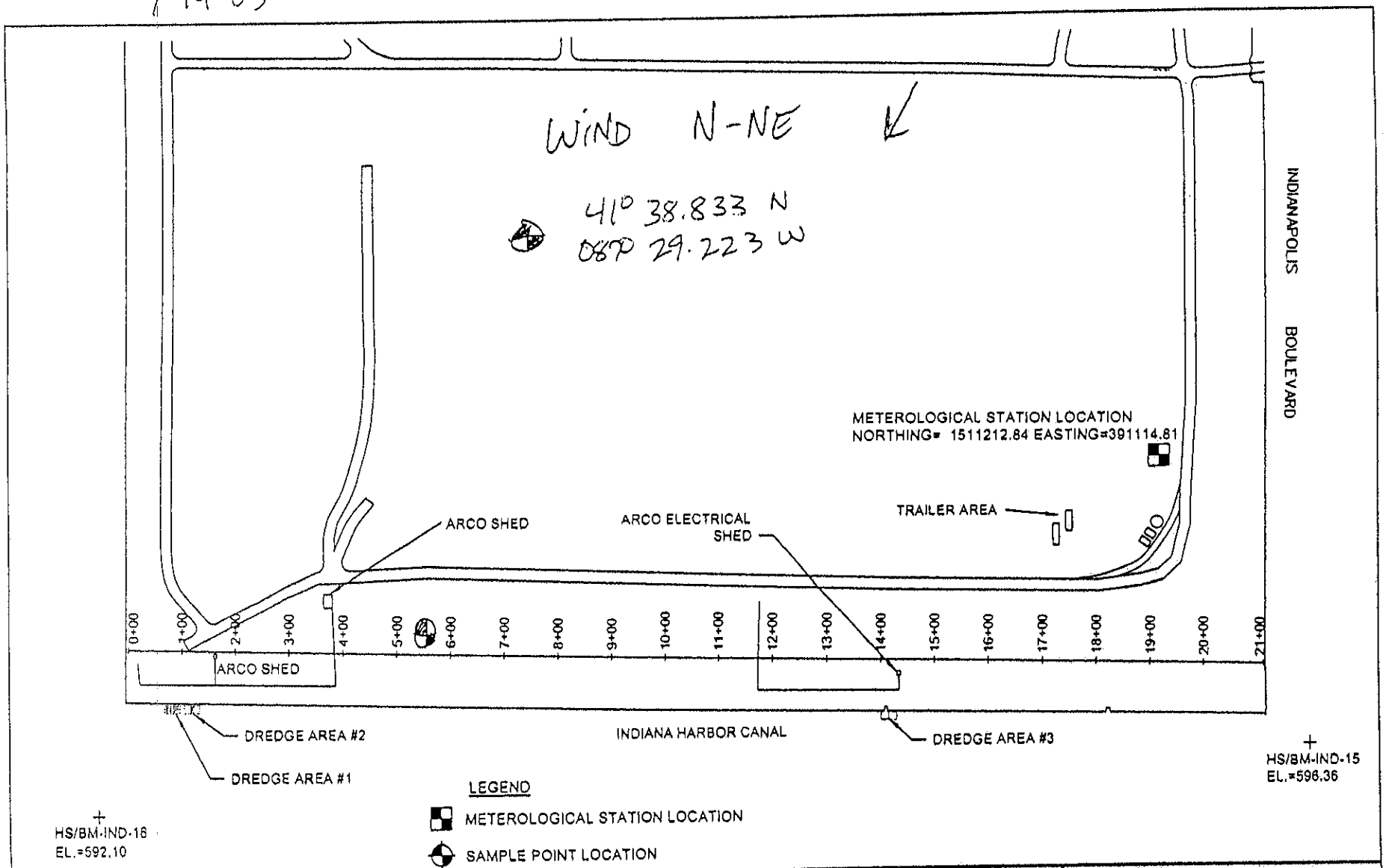
Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Build Coffer Dam, Cut Timbers

Weather conditions: Sunny, Hot, Strong NE Wind

Analytical lab: STL COC Number: ETL 13162, 13163

7-14-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 03E2440

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-14-05 0836	PDR	[illegible]	Zero Calibration	Cal OK	Hot, Sunny, NE wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-14-05

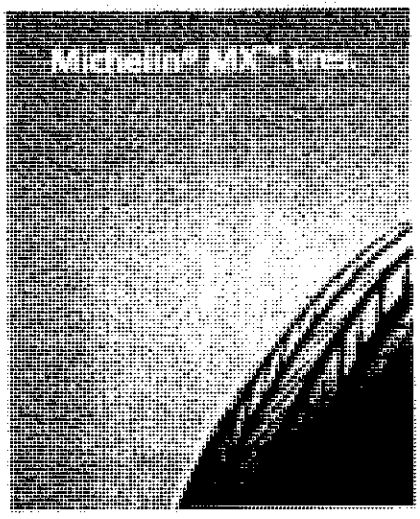
Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Clear 72°F	72°F	68°F	88%	7.0 miles	29.87	From NNW 6mph
Sunrise at 5:28 AM							
5:50 AM	Sunny 75°F	78°F	72°F	89%	7.0 miles	29.88 ↑	From NNE 7mph
6:50 AM	Sunny 75°F	78°F	72°F	89%	7.0 miles	29.89 ↑	From N 7mph
7:50 AM	Partly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.91 ↑	From N 14mph
8:50 AM	Partly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.91 →	From N 9mph
9:50 AM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.92 ↑	From N 12mph
10:50 AM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.92 →	From N 12mph
11:50 AM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.93 ↑	From N 12mph
1:50 PM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.92 →	From N 12mph
2:50 PM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.92 →	From N 12mph
3:50 PM	Partly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.91 ↓	From N 14mph
5:25 PM	Haze 79°F	83°F	73°F	83%	5.0 miles	29.92 ↑	From NNE 14mph



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5:50 PM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.91 ↓	From N 12mph
6:45 PM	Haze 79°F	83°F	73°F	83%	5.0 miles	29.94 ↑	From N 9mph
7:20 PM	Partly Cloudy 77°F	80°F	72°F	83%	7.0 miles	29.91 ↓	From NNE 9mph
7:50 PM	Partly Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.92 ↑	Variable 7mph

Sunset at 8:23 PM

8:50 PM	Partly Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.93 ↑	Variable 7mph
9:50 PM	Partly Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.94 ↑	Variable 7mph

Avg. 75° 29.91

Back to previous page

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This Week's Features

Summer Lawn Care

Tips to gro yard in hot weather.

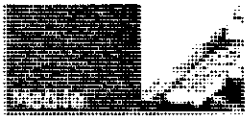
Driving Weather

Check curr conditions

Summer Adventure

Find perfec your sumn

Mobile Weather



Track Hur cell phone

Health

Weather a

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	68000	0.067	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.035	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	67000	0.066	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.067	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5600	0.005	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1000.0			0.295	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	9900	0.009	0.038	984.2	23000	0.023	0.036	1048.0	39000	0.037	0.036
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1600	0.002	0.008	984.2	6600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	16000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS

Parameter	Limit	Week of 06/20/05																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	8.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.560
Anthracene	9376.0	1010.0	1850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.848	1011.5	ND	0.247	0.786
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	680	0.652	0.385
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.638
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609	1001.7	13000	12.975	10.982	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7	26000	24.605	23.125	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.561
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.096	1056.7	25000	23.659	24.274	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Parameter	Limit	Week of 06/27/05																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	8800	8.939	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.861	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	0.520	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.338
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.038	6.901	994.8	6300	6.333	6.305	961.1	5200	5.410	6.587	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 07/04/05																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.615			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.650	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.808	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.516	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.887	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	16.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.882	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/13/05																				
		6/13/2005			6/14/2005			6/15/2005			6/16/2005			6/17/2005			6/18/2005			6/19/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.490	0.153	0.146	0.092	0.029	0.068	0.250	0.078	0.068	0.480	0.150	0.075	0.160	0.050	0.100	0.300	0.094	0.080	0.600	0.188	0.112
Ethyl Benzene	3565.0	0.220	0.051	0.055	0.021	0.005	0.018	0.085	0.020	0.018	0.100	0.023	0.021	0.042	0.010	0.024	0.065	0.015	0.014	0.120	0.028	0.019
Toluene	9065.0	3.000	0.796	0.690	0.170	0.045	0.220	0.460	0.122	0.220	0.710	0.188	0.225	0.250	0.066	0.253	0.430	0.114	0.107	0.900	0.239	0.146
Xylene	62510.0	0.870	0.200	0.214	0.082	0.019	0.070	0.302	0.070	0.070	0.370	0.085	0.078	0.139	0.032	0.091	0.271	0.062	0.054	0.570	0.131	0.076

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.560	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167		0.000	0.178		0.000	0.131		0.000	0.063		0.000	0.039
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023		0.000	0.023		0.000	0.018		0.000	0.009		0.000	0.005
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213		0.000	0.225		0.000	0.167		0.000	0.081		0.000	0.046
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093		0.000	0.095		0.000	0.075		0.000	0.040		0.000	0.023

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 239

DATE 15 Jul 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 75 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed installation of the coffer dam for area 1. Excavation of the area also began. EQ mixed dredge material and loaded roll off boxes. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, five personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 239

DATE 15 Jul 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		2.0	16.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	3,812.0	Total	10.0	82.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
SN10003403	Loader		4.0	4.0
6CRC2136	Small Excavator		4.0	4.0
Total operating hours to date: 752.0		Total	8.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	5/18/5	[signature]	5/18/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:29:36 15-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.232 mg/m³
Time at maximum: 09:29:37 Jul 15
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:29:36 Jul 15
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jul	09:34:36	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 11:26:49 15-Jul
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:26:49 Jul 15
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:26:49 Jul 15
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jul	11:31:49	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:26:43 15-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.845 mg/m³
Time at maximum: 13:26:45 Jul 15
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:26:43 Jul 15
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jul	13:31:43	0.015

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:18:20 15-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.171 mg/m³
Time at maximum: 15:19:50 Jul 15
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:18:20 Jul 15
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	15-Jul	15:23:20	0.016

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13165

Project No.	Project Name
030244	Indiana Harbor Obstruction

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13A/520	TO-13A/466
Sumi-Vol 071505	7-15-05	24hr.	Filter	973.44L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-16-05	8:15	[illegible]	7/16/05	8:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7/25/05

Report To: Jackie Dunn

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd.
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13164

Project No.: 0302414

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Ben Kolany / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 071505	7-15-05	24hr.	Summa	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Kolany	7-15-05	8:15	Carl Sickle	7/16/05	8:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop at STL Valpo.

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): ~~7 DAY~~ 7/25/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

Site: 030244
PN: Indiana Harbor
Date: 7/15/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min.	Air Volume, liters
TO-15	VOC 071505					06:30	06:30	24	6L
TO-13	Semi VOC	071505				06:30	06:30	24	973.44L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

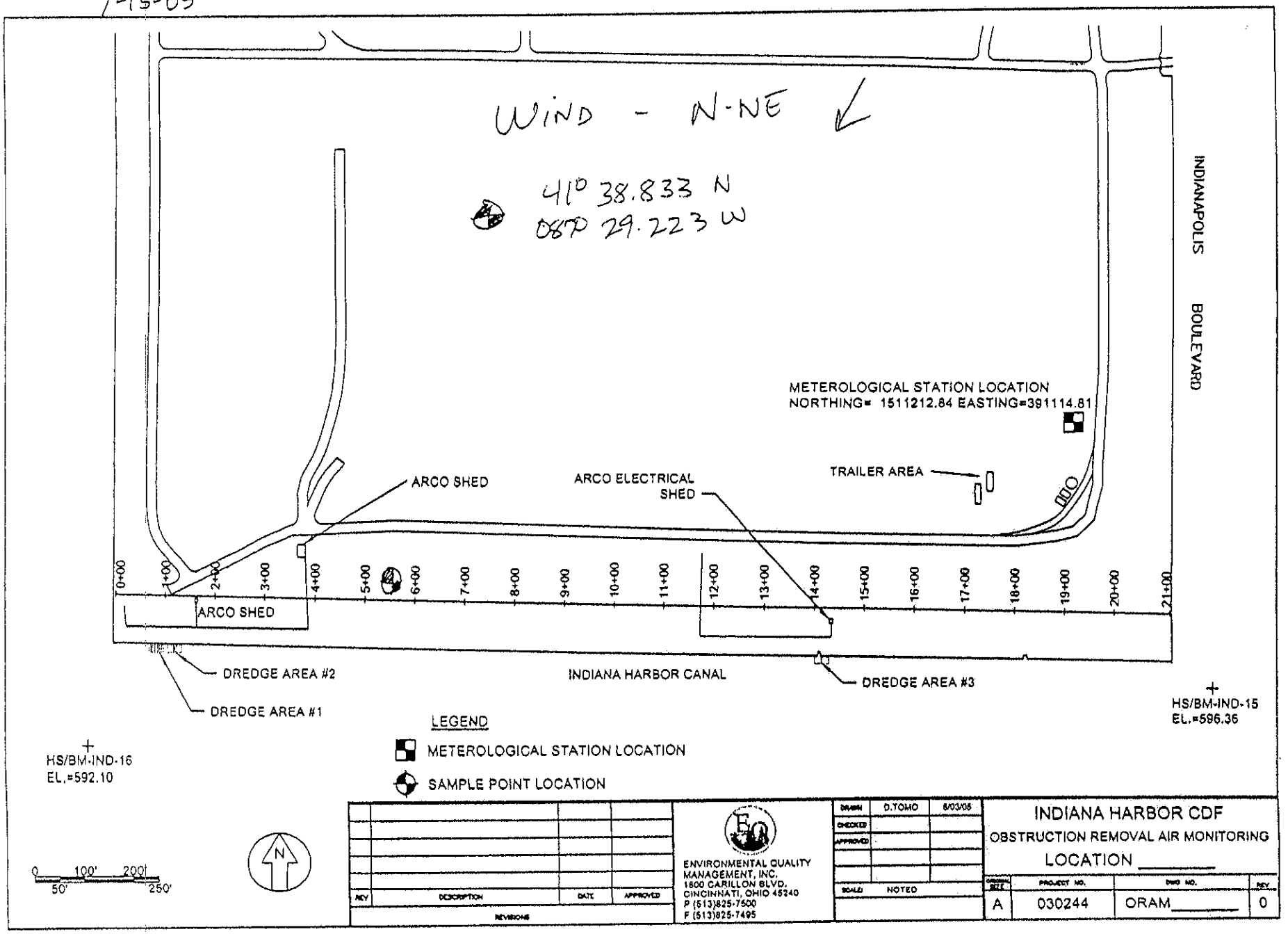
Entries by:

Calculations by:

Checked by:

Activities performed on site: Finish, DAM + START Needle, Area #1
Weather conditions: OVERCAST, HOT, HUMID, NONE WIND
Analytical lab: SGL
COC Number: EW 13164, 13165

7-15-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-15-05 0810	PDR	[illegible]	Zero Calibration	"Cal OK"	Over Cast, Humid, Hot, NE Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-15-05

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Yesterday

as reported at Gary

Yesterday

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Mostly Cloudy 75°F	79°F	73°F	94%	7.0 miles	29.94	From N 8mph
Sunrise at 5:29 AM							
5:50 AM	Mostly Cloudy 75°F	79°F	73°F	94%	5.0 miles	29.94 →	From N 6mph
6:50 AM	Mostly Cloudy 75°F	79°F	73°F	94%	5.0 miles	29.95 ↑	From NNE 6mph
7:50 AM	Cloudy 75°F	79°F	73°F	94%	4.0 miles	29.97 ↑	From NNE 6mph
8:50 AM	Cloudy 77°F	81°F	73°F	89%	5.0 miles	29.97 →	From N 6mph
9:50 AM	Mostly Cloudy 79°F	83°F	73°F	83%	7.0 miles	29.98 ↑	From N 7mph
10:50 AM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.99 ↑	From N 12mph
11:50 AM	Mostly Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.99 →	From N 12mph
12:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	7.0 miles	29.98 ↓	From N 12mph
1:50 PM	Mostly Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.97 ↓	From N 12mph
2:48 PM	Mostly Cloudy 77°F	80°F	72°F	83%	10.0 miles	29.97 →	From N 12mph
	Mostly						

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4:50 PM	Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.95 ↓	From N 14mph	
5:45 PM	Mostly Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.94 ↓	From N 12mph	
6:55 PM	Mostly Cloudy 79°F	82°F	70°F	74%	10.0 miles	29.94 →	From NNE 9mph	
7:50 PM	Mostly Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.96 ↑	From N 9mph	
Sunset at 8:22 PM								
8:53 PM	Mostly Cloudy 75°F	78°F	72°F	89%	10.0 miles	29.95 ↓	From N 9mph	
9:50 PM	Mostly Cloudy 77°F	80°F	72°F	83%	10.0 miles	29.96 ↑	From N 9mph	

Aug. 78° — 29.96

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.026	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	6/20/2005 pg Raw Data	6/20/2005 ppb Calc. Data	6/20/2005 5-Day Average	6/21/2005 Sample Volume (liters)	6/21/2005 pg Raw Data	6/21/2005 ppb Calc. Data	6/21/2005 5-Day Average	6/22/2005 Sample Volume (liters)	6/22/2005 pg Raw Data	6/22/2005 ppb Calc. Data	6/22/2005 5-Day Average
PCB 8		1010.0	58000	0.067	0.031	1005.4	31000	0.031	0.032	1056.7	46000	0.043	0.039
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.056	1056.7	71000	0.067	0.067
PCB28		1010.0	46000	0.044	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2900	0.003	0.003	1056.7	2200	0.002	0.003
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059

Parameter	6/23/2005 Sample Volume (liters)	6/23/2005 pg Raw Data	6/23/2005 ppb Calc. Data	6/23/2005 5-Day Average	6/24/2005 Sample Volume (liters)	6/24/2005 pg Raw Data	6/24/2005 ppb Calc. Data	6/24/2005 5-Day Average	6/25/2005 Sample Volume (liters)	6/25/2005 pg Raw Data	6/25/2005 ppb Calc. Data	6/25/2005 5-Day Average	6/26/2005 Sample Volume (liters)	6/26/2005 pg Raw Data	6/26/2005 ppb Calc. Data	6/26/2005 5-Day Average
PCB 8	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1001.7	1600	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3600	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	6/27/2005 pg Raw Data	6/27/2005 ppb Calc. Data	6/27/2005 5-Day Average	6/28/2005 Sample Volume (liters)	6/28/2005 pg Raw Data	6/28/2005 ppb Calc. Data	6/28/2005 5-Day Average	6/29/2005 Sample Volume (liters)	6/29/2005 pg Raw Data	6/29/2005 ppb Calc. Data	6/29/2005 5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.067
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB28		961.3	36000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	6/30/2005 pg Raw Data	6/30/2005 ppb Calc. Data	6/30/2005 5-Day Average	7/1/2005 Sample Volume (liters)	7/1/2005 pg Raw Data	7/1/2005 ppb Calc. Data	7/1/2005 5-Day Average	7/2/2005 Sample Volume (liters)	7/2/2005 pg Raw Data	7/2/2005 ppb Calc. Data	7/2/2005 5-Day Average	7/3/2005 Sample Volume (liters)	7/3/2005 pg Raw Data	7/3/2005 ppb Calc. Data	7/3/2005 5-Day Average
PCB 8	961.1	22000	0.023	0.063	983.2	8900	0.009	0.038	984.2	23000	0.023	0.036	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.005	0.010	983.2	1800	0.002	0.008	984.2	6600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.026
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1600	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	7/4/2005 pg Raw Data	7/4/2005 ppb Calc. Data	7/4/2005 5-Day Average	7/5/2005 Sample Volume (liters)	7/5/2005 pg Raw Data	7/5/2005 ppb Calc. Data	7/5/2005 5-Day Average	7/6/2005 Sample Volume (liters)	7/6/2005 pg Raw Data	7/6/2005 ppb Calc. Data	7/6/2005 5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	7/7/2005 pg Raw Data	7/7/2005 ppb Calc. Data	7/7/2005 5-Day Average	7/8/2005 Sample Volume (liters)	7/8/2005 pg Raw Data	7/8/2005 ppb Calc. Data	7/8/2005 5-Day Average	7/9/2005 Sample Volume (liters)	7/9/2005 pg Raw Data	7/9/2005 ppb Calc. Data	7/9/2005 5-Day Average	7/10/2005 Sample Volume (liters)	7/10/2005 pg Raw Data	7/10/2005 ppb Calc. Data	7/10/2005 5-Day Average
PCB 8		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

AMBIENT AIR MONITORING RESULTS

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.580
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.646	1011.5	ND	0.247	0.786
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305	1001.7	ND	0.250	0.306	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.388	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.638
Flourene	1250.0	1010.0	14000	13.861	7.308	1005.4	8600	8.554	8.398	1056.7	13000	12.302	10.609	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7	26000	24.605	23.125	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.581
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210	1001.7	4100	4.093	2.851	1009.2	4800	4.758	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695	981.1	9200	9.672	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.888	981.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	660	0.649	0.760
Anthracene	9376.0	961.3	600	0.620	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.378	981.1	680	0.708	0.485	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341	981.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446	981.1	ND	0.260	0.446	983.2	ND	0.254	0.386	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305	981.1	5200	5.410	6.587	983.2	960	0.976	5.815	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982	981.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257	981.1	ND	0.260	0.258	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.182	981.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.418	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032	981.1	25000	26.012	34.030	983.2	5400	5.492	26.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.408	981.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Week of 07/04/05

Parameter	Limit	7/4/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.615			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.850	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.806	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.516	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.867	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	18.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.682	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
240

DATE
16 Jul 2005 - Saturday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912F6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 88 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued with dredging of area one. EQ mixed dredge material and loaded roll off boxes. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, three security guards from Task Force, three personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 240

DATE 16 Jul 2005 - Saturday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	3,870.0	Total	7.0	58.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 768.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	7/18/5	[signature]	7/18/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:55:56 16-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.182 mg/m³
Time at maximum: 10:56:49 Jul 16
Max STEL Concentration: 0.020 mg/m³
Time at max STEL: 10:56:56 Jul 16
Overall Avg Conc: 0.051 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jul	11:00:56	0.068

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:23:44 16-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.186 mg/m³
Time at maximum: 12:27:22 Jul 16
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 12:27:44 Jul 16
Overall Avg Conc: 0.010 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jul	12:28:44	0.021

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:19:16 16-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:19:16 Jul 16
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:19:16 Jul 16
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jul	14:24:16	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:13:38 16-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.255 mg/m³
Time at maximum: 15:13:40 Jul 16
Max STEL Concentration: 0.005 mg/m³
Time at max STEL: 15:18:08 Jul 16
Overall Avg Conc: 0.015 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	16-Jul	15:18:38	0.015

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- [illegible]

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Pat Lefang [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13 8270	TO-13/1646
Semi-Vol 071605	7-16-05	24 hr.	Filter	1020.5 L	2	X	X
Semi-Vol 071705	7-17-05	24 hr	Filter	964.2 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-18-05	9:15	[signature]	7/18	9:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Day 7/26/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13166

Project No.: 0302444

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lefang [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 071605	7/16/05	24 hr.	Summa	6 L	1	X
VOC 071705	7/17/05	24 hr.	Summa	6 L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7/18/05	9:15	[signature]	7/18	9:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL- Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Day 7/26/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING EQUIPMENT CALIBRATION LOG

te Name: Indiana Harbor Obstruction Removal Project No.: 030244

ATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-16-05 0852	PDR	[illegible]	Zero Calibration	"Cal Ok"	Overcast, Hot, Humid, Variable wind
7-16-05 1014	Multi-Rae	[illegible]	Fresh air multi-gas	Calibrated	"

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site: Indiana Harbor
PN 030244
Date: 7 / 16 / 05
Page: 1 of 1

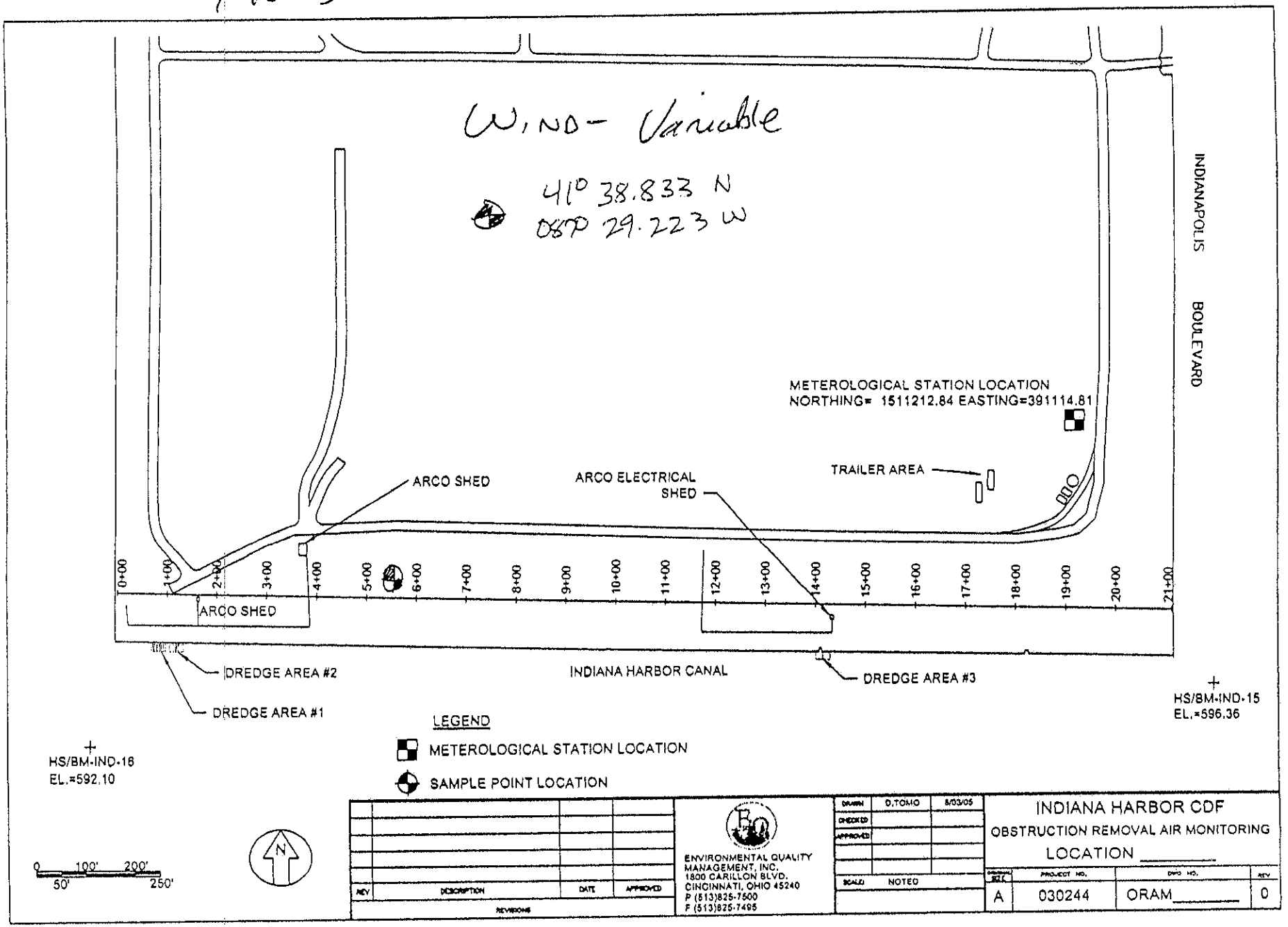
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ HR	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 071605					06:30	07:00	24.5	6L
TO-13	Semi VOC 071605					06:30	07:00	24.5	1020.5
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Drilling MW #1
Weather conditions: Overcast, Hot, Humid, Variable wind
Analytical lab: STL
COC Number: EQ 13166, 13167

7-16-05


Wind- Variable
41° 38.833 N
087° 29.223 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 50' 100' 200' 250'
N
REV DESCRIPTION DATE APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 8/03/05
CHECKED
APPROVED
SCALE NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
ORIGINAL SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV 0

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7-16-05

Enter city or US zip See weather related to GO

Get 1-click access to your local weather

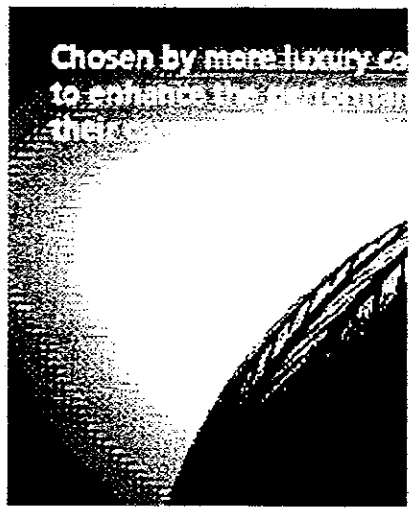
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday

as reported at Gary

Yesterday

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Partly Cloudy **75°F**	**79°F**	73°F	94%	7.0 miles	29.95	calm
	Sunrise at 5:30 AM						
5:55 AM	Mostly Cloudy **73°F**	**73°F**	72°F	94%	5.0 miles	29.96 ↑	calm
6:45 AM	Mostly Cloudy **75°F**	**79°F**	73°F	94%	5.0 miles	29.97 ↑	calm
8:55 AM	Thunder **77°F**	**81°F**	73°F	89%	7.0 miles	29.99 ↑	N/A
9:50 AM	Mostly Cloudy **79°F**	**83°F**	73°F	83%	10.0 miles	29.99 →	calm
10:55 AM	Mostly Cloudy **81°F**	**85°F**	72°F	74%	7.0 miles	29.98 ↓	calm
11:50 AM	Mostly Cloudy **84°F**	**89°F**	72°F	66%	10.0 miles	29.98 →	Variable 6mph
12:50 PM	Partly Cloudy **84°F**	**89°F**	72°F	66%	10.0 miles	29.97 ↓	From N 9mph
1:50 PM	Partly Cloudy **84°F**	**88°F**	70°F	62%	10.0 miles	29.96 ↓	Variable 7mph
2:50 PM	Partly Cloudy **88°F**	**95°F**	73°F	62%	10.0 miles	29.94 ↓	Variable 7mph
3:50 PM	Sunny **88°F**	**95°F**	73°F	62%	10.0 miles	29.94 →	Variable 7mph



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4:45 PM	Sunny **88°F**	95°F	73°F	62%	10.0 miles	29.92 ↓	Variable 7mph	
5:50 PM	Sunny **82°F**	87°F	72°F	70%	10.0 miles	29.93 ↑	Variable 7mph	
6:50 PM	Sunny **82°F**	88°F	73°F	74%	10.0 miles	29.92 ↓	Variable 7mph	
7:50 PM	Sunny **79°F**	83°F	73°F	83%	10.0 miles	29.93 ↑	Variable 7mph	
Sunset at 8:21 PM								
8:50 PM	Clear **79°F**	83°F	73°F	83%	10.0 miles	29.93 →	calm	
9:45 PM	Clear **75°F**	79°F	73°F	94%	10.0 miles	29.93 →	calm	

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PCBs

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	6/20/2005 pg Raw Data	6/20/2005 ppb Calc. Data	6/20/2005 5-Day Average	6/21/2005 Sample Volume (liters)	6/21/2005 pg Raw Data	6/21/2005 ppb Calc. Data	6/21/2005 5-Day Average	6/22/2005 Sample Volume (liters)	6/22/2005 pg Raw Data	6/22/2005 ppb Calc. Data	6/22/2005 5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1006.4	31000	0.031	0.032	1056.7	46000	0.043	0.039
PCB 15		1010.0	13000	0.013	0.007	1006.4	6800	0.007	0.007	1056.7	8900	0.008	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	46000	0.046	0.055	1055.7	71000	0.067	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039
PCB77		1010.0	ND	0.000	0.000	1006.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.069

Parameter	6/23/2005 Sample Volume (liters)	6/23/2005 pg Raw Data	6/23/2005 ppb Calc. Data	6/23/2005 5-Day Average	6/24/2005 Sample Volume (liters)	6/24/2005 pg Raw Data	6/24/2005 ppb Calc. Data	6/24/2005 5-Day Average	6/25/2005 Sample Volume (liters)	6/25/2005 pg Raw Data	6/25/2005 ppb Calc. Data	6/25/2005 5-Day Average	6/26/2005 Sample Volume (liters)	6/26/2005 pg Raw Data	6/26/2005 ppb Calc. Data	6/26/2005 5-Day Average
PCB 8	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1001.7	7300	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1001.7	1800	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB189	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
Total	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	6/27/2005 pg Raw Data	6/27/2005 ppb Calc. Data	6/27/2005 5-Day Average	6/28/2005 Sample Volume (liters)	6/28/2005 pg Raw Data	6/28/2005 ppb Calc. Data	6/28/2005 5-Day Average	6/29/2005 Sample Volume (liters)	6/29/2005 pg Raw Data	6/29/2005 ppb Calc. Data	6/29/2005 5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057
PCB 15		961.3	6700	0.007	0.006	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.036	994.8	37000	0.037	0.038
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	6/30/2005 pg Raw Data	6/30/2005 ppb Calc. Data	6/30/2005 5-Day Average	7/1/2005 Sample Volume (liters)	7/1/2005 pg Raw Data	7/1/2005 ppb Calc. Data	7/1/2005 5-Day Average	7/2/2005 Sample Volume (liters)	7/2/2005 pg Raw Data	7/2/2005 ppb Calc. Data	7/2/2005 5-Day Average	7/3/2005 Sample Volume (liters)	7/3/2005 pg Raw Data	7/3/2005 ppb Calc. Data	7/3/2005 5-Day Average
PCB 8	961.1	22000	0.023	0.053	983.2	9900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	6600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.026	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.026
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	7/4/2005 pg Raw Data	7/4/2005 ppb Calc. Data	7/4/2005 5-Day Average	7/5/2005 Sample Volume (liters)	7/5/2005 pg Raw Data	7/5/2005 ppb Calc. Data	7/5/2005 5-Day Average	7/6/2005 Sample Volume (liters)	7/6/2005 pg Raw Data	7/6/2005 ppb Calc. Data	7/6/2005 5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	7/7/2005 pg Raw Data	7/7/2005 ppb Calc. Data	7/7/2005 5-Day Average	7/8/2005 Sample Volume (liters)	7/8/2005 pg Raw Data	7/8/2005 ppb Calc. Data	7/8/2005 5-Day Average	7/9/2005 Sample Volume (liters)	7/9/2005 pg Raw Data	7/9/2005 ppb Calc. Data	7/9/2005 5-Day Average	7/10/2005 Sample Volume (liters)	7/10/2005 pg Raw Data	7/10/2005 ppb Calc. Data	7/10/2005 5-Day Average
PCB 8		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.546	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.086
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	23.125
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.580
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.780
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	1001.7	ND	0.250	0.366	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	1001.7	20000	19.966	24.688	1009.2	40000	39.636	26.166	951.3	43000	45.201	29.660	1011.5	44000	43.500	34.581
Phenanthrene	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.066	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.603	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.182
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	38000	37.803	36.709	994.8	31000	31.162	33.032
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	8.131
Acenapthylene	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.338
Benzo(ghi)perylene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	6900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1600	1.624	2.525	1048.0	1400	1.336	2.057

Week of 07/04/05

Parameter	Limit	7/4/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.615			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.650	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.806	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.516	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.887	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	16.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.882	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!

Parameter	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of	06/27/05																			
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of	07/04/05																			
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
242

DATE
18 Jul 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 77 °F, Max 91 °F, 0.5 IN Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued excavation of cell one. They set the lower ring and divers installed the shims. EQ mixed dredge spoil, loaded roll off boxes and shipped 11 roll offs from Cell two and three. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, eight personnel from Thatcher (four dive team members), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 242

DATE 18 Jul 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
ECM	SAFETY ENGINEER - ON SITE		1.0	10.0
ECM	SUPER - JOB		0.0	0.0
ECM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	3,968.0	Total	12.0	98.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
6CR02136	Small Excavator		4.0	8.0
Total operating hours to date: 784.0		Total	12.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	7/19/5	[signature]	7/19/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:43:59 18-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.803 mg/m³
Time at maximum: 09:45:56 Jul 18
Max STEL Concentration: 0.106 mg/m³
Time at max STEL: 09:50:00 Jul 18
Overall Avg Conc: 0 226 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jul	09:48:59	0.316

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:19:33 18-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.066 mg/m³
Time at maximum: 11:23:41 Jul 18
Max STEL Concentration: 0.014 mg/m³
Time at max STEL: 11:24:33 Jul 18
Overall Avg Conc: 0.043 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jul	11:24:33	0.043

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:32:59 18-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.045 mg/m³
Time at maximum: 13:39:39 Jul 18
Max STEL Concentration: 0.010 mg/m³
Time at max STEL: 13:39:29 Jul 18
Overall Avg Conc: 0 024 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jul	13:37:59	0 023

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:23:01 18-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.025 mg/m³
Time at maximum: 15:25:25 Jul 18
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:23:01 Jul 18
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	18-Jul	15:28:01	0.002

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13169**

Project No.	Project Name
030244	Fairlawn Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* [illegible]

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Comp-Vol 07K305	7-18-05	2355hr	Filter	1,003.9L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	7-19-05	900	[illegible]	[illegible]	900
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: SR - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (*EXACT DUE DATE*): 7-DAYS 7/27/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13168

Project No.	Project Name
030214	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Letsinger / FOM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
Vol 071805	7-18-05	2350	Sump Liquid	6L	1	X

Relinquished by: *(Signature)* Ben Letsinger — Date 7-19-05 — Time 400 — Received by: *(Signature)* — Date 7/19 — Time 400

Relinquished by: *(Signature)* — Date — Time — Received by: *(Signature)* — Date — Time

Relinquished by: *(Signature)* — Date — Time — Received by: *(Signature)* — Date — Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Day 7/27/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	Indiana Harbor
PN	030244
Date:	7/18/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Vol. 071805					07:00	06:30	23.5	6
TO-3	Sanivol 071805					07:00	06:30	23.5	1,003.9
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Dropping: set flower [illegible] ; picked out trucks

Weather conditions: Rain early, 5 in. → Sunny + hot, humid

Analytical lab: STL COC Number: ~~CO~~ 13165, 13169

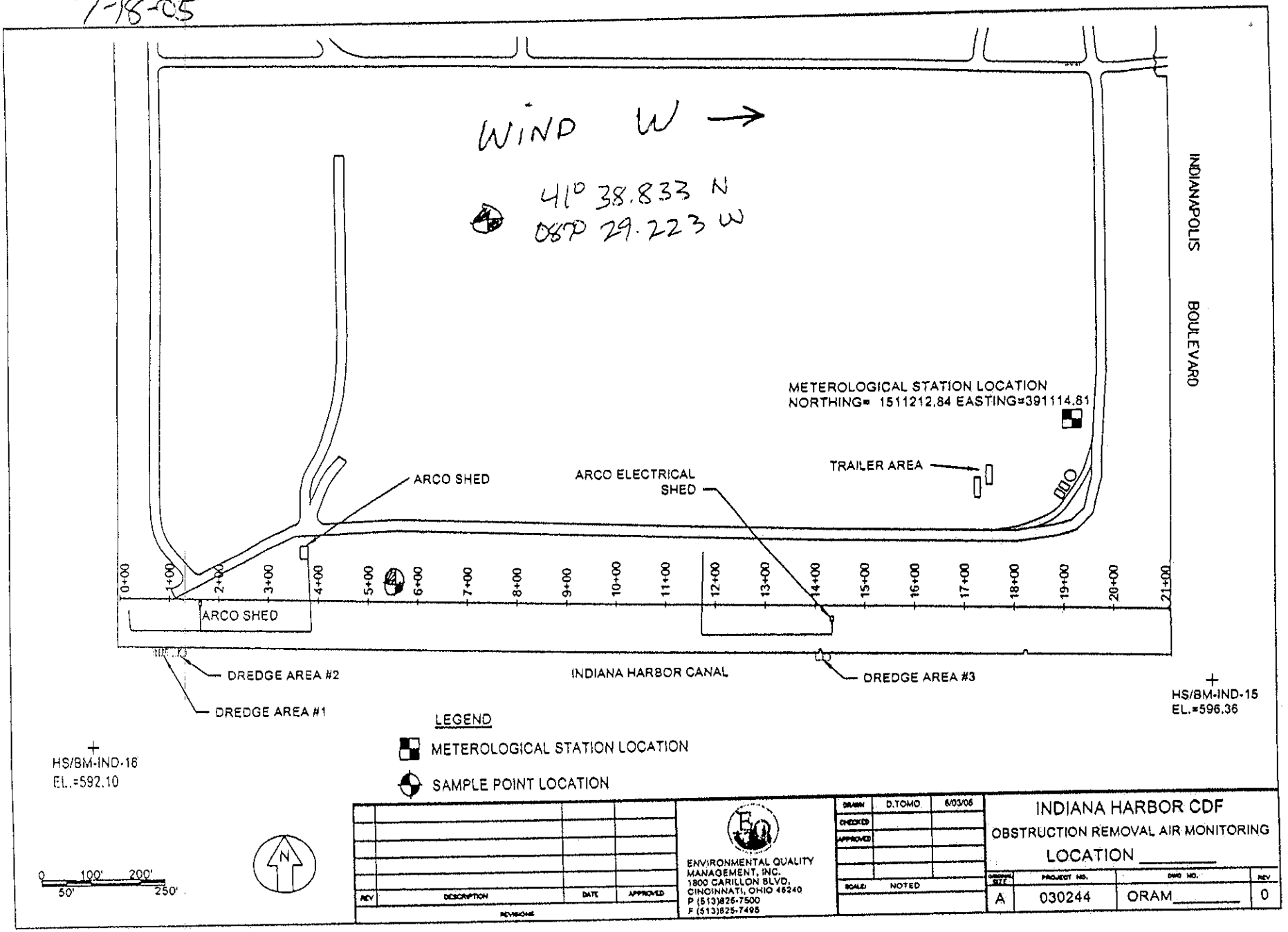
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
0829 7-14-05	PDR	Perry Selby	Zero Calibration	"Cal OK"	Hot, Sunny SW WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-18-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
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DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

7-18-05

as reported at Gary

Yesterday

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:45 AM	Partly Cloudy **79°F**	**84°F**	75°F	89%	7.0 miles	29.85	From S 9mph
	Sunrise at 5:31 AM						
5:45 AM	Mostly Cloudy **79°F**	**84°F**	75°F	89%	5.0 miles	29.86 ↑	From S 9mph
6:45 AM	Mostly Cloudy **79°F**	**84°F**	75°F	89%	5.0 miles	29.87 ↑	From S 9mph
7:01 AM	Light Rain with Thunder **79°F**	**84°F**	75°F	89%	7.0 miles	29.87 →	From SW 14mph
7:50 AM	Light Rain **77°F**	**81°F**	73°F	89%	7.0 miles	29.87 →	From SW 12mph
8:50 AM	Mostly Cloudy **79°F**	**84°F**	75°F	89%	7.0 miles	29.85 ↓	From S 14mph
9:49 AM	Mostly Cloudy **82°F**	**90°F**	75°F	79%	10.0 miles	29.83 ↓	From SSW 12mph
11:50 AM	Mostly Cloudy **88°F**	**99°F**	77°F	70%	10.0 miles	29.85 ↑	From WSW 12mph
12:45 PM	Light Rain **81°F**	**86°F**	73°F	79%	7.0 miles	29.86 ↑	From W 12mph
1:50 PM	Mostly Cloudy **84°F**	**92°F**	75°F	74%	10.0 miles	29.83 ↓	From SW 12mph
2:50	Mostly Cloudy	**95°F**	66°F	43%	Unlimited	29.81 ↓	From W

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PM	91°F						12mph
3:50 PM	Mostly Cloudy 91°F	94°F	64°F	41%	Unlimited	29.82 ↑	From W 17mph
4:50 PM	Mostly Cloudy 88°F	90°F	66°F	49%	Unlimited	29.83 ↑	From WSW 14mph
5:50 PM	Mostly Cloudy 88°F	91°F	68°F	52%	Unlimited	29.83 →	From WSW 14mph
6:50 PM	Mostly Cloudy 88°F	92°F	70°F	55%	Unlimited	29.83 →	From WSW 12mph
7:50 PM	Partly Cloudy 86°F	88°F	66°F	51%	Unlimited	29.84 ↑	From W 9mph
Sunset at 8:20 PM							
8:50 PM	Partly Cloudy 82°F	85°F	66°F	58%	Unlimited	29.86 ↑	From W 12mph
9:50 PM	Partly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.88 ↑	From W 9mph

Avg. 85°

29.84

0.5 INCH RAIN

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13167

Project No.	Project Name
030214	Indiana Harbor Dredge Disposal Cell

Samplers/Affiliation: (Print Name and Sign) Ken Lofring / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13 8270	TO-13/1668
Sani-Vol 071605	7-16-05	24 hr.	Filter	1020.5 L	2	X	X
Sani-Vol 071705	7/17/05	24hr	Filter	964.2 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-18-05	9:15	[signature]	7-18	9:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Day 7/26/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13166

Project No.	Project Name																	
0302444	Indiana Harbor Obstruction Removal																	
Samplers/Affiliation: (Print Name and Sign) Ben Lehing				EQM	Lab P.O. No: 9132													
Sample ID:	Date	Time	Description/Matrix:		Sample Volume / Comments	No. of Containers	TO-15											
VOC 071605	7-16-05	24 hr.	Summa		6 L	1	X											
VOC 071705	7-17-05	24 hr.	Summa		6 L	1	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	7-18-05	9:15	[signature]	7-18	9:15	STL- Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-Day 7/26/05	Report To: Jackie Dean	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

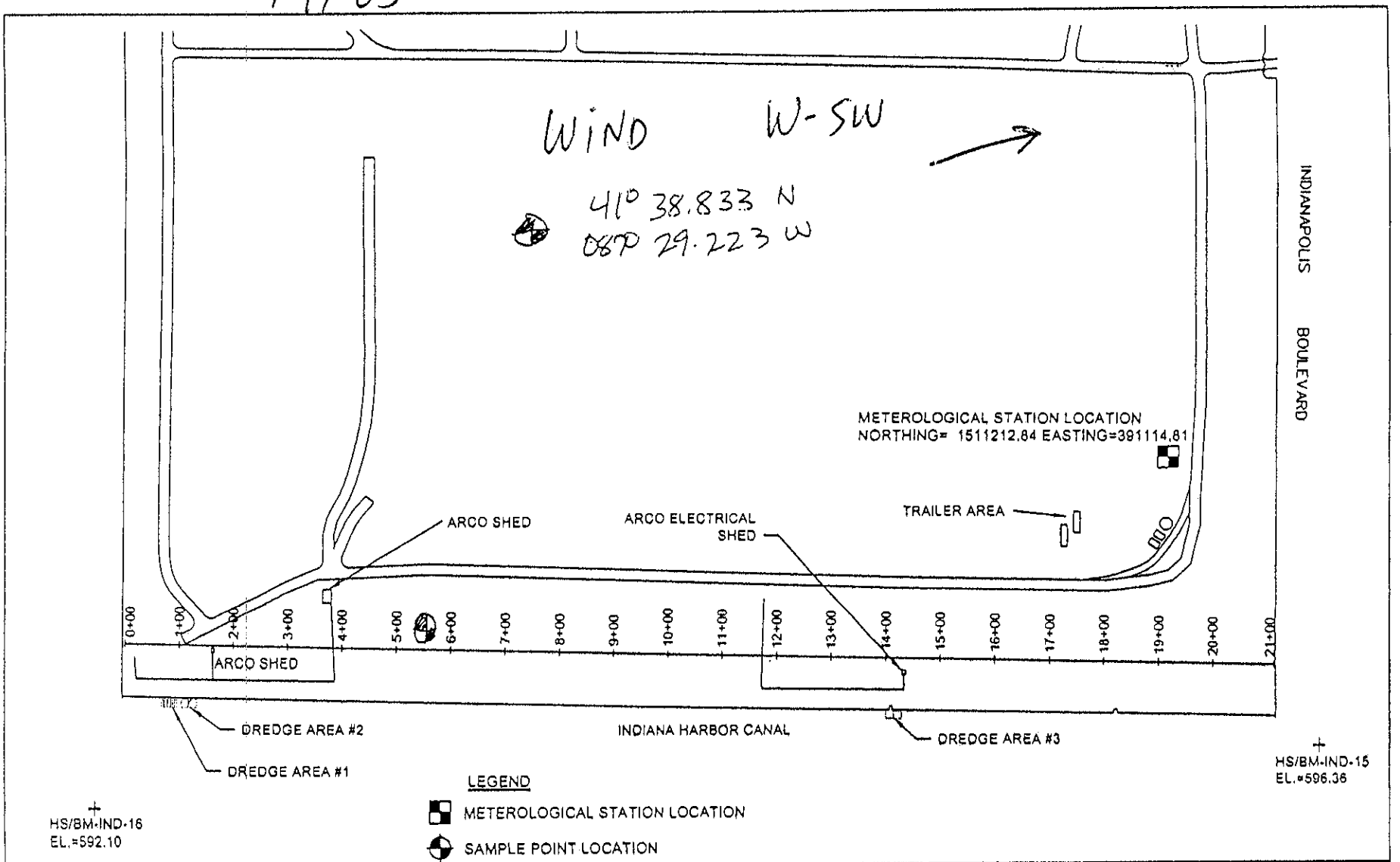
Site: Indiana Harbor
PN 030244
Date: 7/17/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	VOC	071705				07:00	07:00	24	6
TO-13	Spir-Vol	071705				07:00	07:00	24	964.2
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: NONE, DIESEL SPILL ON SITE
Weather conditions: SUNNY, HOT, HUMID
Analytical lab: STL
COC Number: 073166, 15167

7-17-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

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7-17-05

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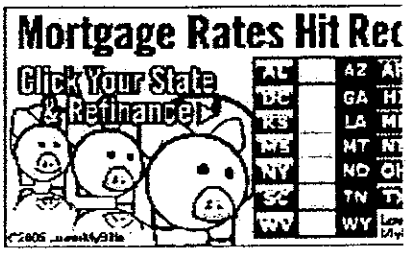
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday

as reported at Gary

Yesterday

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:55 AM	Fog **75°F**	**79°F**	73°F	94%	2.5 miles	29.93	calm
	Sunrise at 5:31 AM						
5:50 AM	Fog **73°F**	**73°F**	72°F	94%	1.5 miles	29.93 →	calm
6:59 AM	Partly Cloudy **75°F**	**79°F**	73°F	94%	3.0 miles	29.94 ↑	calm
7:50 AM	Haze **81°F**	**87°F**	75°F	84%	4.0 miles	29.95 ↑	calm
8:50 AM	Partly Cloudy **84°F**	**89°F**	72°F	66%	7.0 miles	29.96 ↑	calm
9:50 AM	Partly Cloudy **88°F**	**95°F**	73°F	62%	10.0 miles	29.95 ↓	calm
10:50 AM	Partly Cloudy **91°F**	**97°F**	70°F	49%	10.0 miles	29.95 →	Variable 7mph
11:45 AM	Partly Cloudy **93°F**	**98°F**	68°F	44%	10.0 miles	29.94 ↓	From S 9mph
12:45 PM	Partly Cloudy **95°F**	**100°F**	68°F	41%	10.0 miles	29.93 ↓	From SW 12mph
1:45 PM	Partly Cloudy **95°F**	**100°F**	68°F	41%	10.0 miles	29.91 ↓	From W 12mph
2:50 PM	Mostly Cloudy **95°F**	**100°F**	68°F	41%	10.0 miles	29.90 ↓	From WSW 14mph
3:50	Partly						From W



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PM	Cloudy 95°F	102°F	70°F	44%	10.0 miles	29.88 ↓	14mph
4:45 PM	Partly Cloudy 95°F	102°F	70°F	44%	10.0 miles	29.86 ↓	From WSW 14mph
5:46 PM	Partly Cloudy 93°F	100°F	70°F	46%	10.0 miles	29.86 →	From SSW 16mph
6:50 PM	Partly Cloudy 91°F	97°F	70°F	49%	10.0 miles	29.88 ↑	From SSW 16mph
Sunset at 8:21 PM							
8:50 PM	Clear 88°F	97°F	75°F	66%	10.0 miles	29.88 →	From SSW 12mph
9:45 PM	Clear 84°F	92°F	75°F	74%	10.0 miles	29.90 ↑	From SSW 12mph

Avg. 87°

29.91

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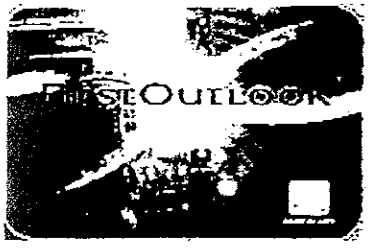

On-Air Schedule (ET)

Now |

9 AM |

12 PM |

Tune to The Weather Channel Radio in your area!

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Pipe Removal In Harbor Canal JOB NO: 072 DATE: 7-18-05

VIS: 0 TEMP:

B.O. 2600 PSI

DIVER: Tattini

Standby 3100 PSI

DIVE 1			DIVE 2			DIVE 3		
Depth	25'	SI	Depth		SI	Depth		
LS	13:29	NG	LS		NG	LS		
LB	14:22	RNT	LB		RNT	LB		
BT	43 min		BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

Area 1

REMARKS: Wedging up Whaler

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Pipe Removal In Harbor Canal JOB NO: 072 DATE: 7-18-05
VIS: 0 TEMP:

DIVER: Tattini B.O. 2600 PSI

Standby 3100 PSI

DIVE 1			DIVE 2			DIVE 3	
Depth	75'	SI	Depth	SI		Depth	
LS	13:29	NG	LS	NG		LS	
LB	14:22	RNT	LB	RNT		LB	
BT	43 min		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

Area 1

REMARKS: Wedging up Whaler

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	W/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job.

- [ ] Have all bail-out bottle been gauge. 3100 / & 2000
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall.	Life Jacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'L in Water	Hose Diver well within work area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OFF water
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging Point.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump	Diver Aim's away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Lad
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

03-18-05

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	W/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge. 3000 / & 2000
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall.	Life Jacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'L in Water	Hose Diver well within work area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OFF water
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Sections	Careful of Rigging points.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump:	Diver Aims away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact. on Ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards):	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

05-18-05

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysi**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 1-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ- trailer	Backup Emergency Communications: Cell.
Fire Extinguisher Available: yes	Inspection Date: 8-05

Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down.

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysi**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 1-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van	
Secondary Evacuation Point: EQ. Trailer	Backup Emergency Communications: Cell	
Fire Extinguisher Available: yes	Inspection Date: 8-05	Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:
[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) Superlite ( ) Miller (X) Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	6-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	46000	0.043	0.039	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	67000	0.066	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6900	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.057	1001.7	69000	0.069	0.075	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.036	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.036
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1600	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	6-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	6-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.036	1048.0	39000	0.037	0.036
PCB 15		961.3	6700	0.007	0.066	952.3	6600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	6600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.016
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7500	0.008	0.028	984.2	20000	0.020	0.026	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7500	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	6-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

AMBIENT AIR MONITORING RESULTS

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.418	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.062
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.398	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1006.4	20000	19.893	19.060	1056.7	28000	24.605	23.125
Phenanthrene	9376.0	1010.0	28000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	26000	23.059	24.274
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.680	951.3	680	0.715	2.625	1011.5	880	0.870	2.580
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.982	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.788
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	1001.7	540	0.389	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	1001.7	20000	19.966	24.888	1009.2	40000	39.635	28.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.581
Phenanthrene	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.683	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.962
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.246	994.8	59000	59.308	47.182
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	981.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	981.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	981.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	981.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	981.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.436
Dibenzo(a,h)anthracene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.258	1048.0	ND	0.239	0.252
Flouranthene	981.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	981.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	981.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	981.1	15000	16.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	981.1	25000	26.012	34.030	983.2	5400	5.492	28.206	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	981.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Week of 07/04/05

Parameter	Limit	7/4/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.615			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.650	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.805	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.516	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.887	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	16.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.882	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!

Parameter	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.680	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

0001

AREA # 2

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	17 yds	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE [signature] 7-18-05

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 987 Box # 20-973

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Ron Hale [signature] 7-18-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

0002
AREA #3

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	17 Yds	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE — 7-18-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 808 Box 20-129
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

1st Choice — 7-18-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

0003
AREA #2

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	17 Yds	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE [signature] 7-18-05

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 70 Box 20-983
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Frank Gallino [signature] 7-18-2005

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

0007

AREA # 3

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507 049	Sediment	17	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE [signature] 7-18-05

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20970

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

R LeBron [signature] 7-18-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

0003

AREA # 3

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507 049	Sediment	17 yds	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE 7-18-05

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328 103

Truck Number: 716 Box 20 130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Jim Foirle

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

DOUG
AREA # 3

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	17 yds	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf Of USACE 7-18-05

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 810 Box 20 132
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Reid Zoltek c/o First Choice 18 Jul 05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 808 Box 20 936
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7-18-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0007

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	17 yds	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materjals are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-18-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 808 Box 20 936

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

1ST Choice — 7-18-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

0008

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: EAST CHICAGO WATERWAY MGMT.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 712 Box 20 920
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 11-18-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0008

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 YD	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7-18-05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 712 Box 20-920

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Frank Gallino — Name of Authorized Agent

Signature

7-18-2005 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

0009

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: EAST CHICAGO WATERWAY MGMT.

GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.

HAULER MAILING ADDRESS: 2320 W. 167th STREET

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20 108

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE):

1 TON = 2,000 LBS. 20 YD.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur R. Nidzitis On Behalf of USACE

DATE: 7-18-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0009

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20YD	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7-18-05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 716 Box 20109

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

James Foul — Name of Authorized Agent

Signature

7-18-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

0010

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 810 Box 20-927
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	
HAULER MAILING ADDRESS: 2320 W. 167th Street	GENERATOR AUTHORIZED SIGNATURE:
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur R. Widzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 11-18-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE: PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0010

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20Y	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7-18-05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 810 Box 20927

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Reid Zolfed — Name of Authorized Agent

c/o First Choice — Signature

18 July 05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20960
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 11-18-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

0011

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7-18-05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 88 20960

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

T. Maxwell — Name of Authorized Agent

J. Maxwell — Signature

7-18-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 243

DATE 19 Jul 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC

WEATHER
Weather Caused No Delay
Temperature Min 63 °F, Max 91 °F, No Precipitation, No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued excavation of cell one. Progress was slow due to the presence of dense sand. Thatcher also began removal of the pile cap. EQ mixed dredge spoil, loaded roll off boxes and shipped 6 roll offs from all three cells. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, eight personnel from Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 243

DATE 19 Jul 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		5.0	40.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,066.0	Total	12.0	98.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 808.0		Total	0.0	24.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/20/5		7/20/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:22:09 19-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.044 mg/m³
Time at maximum: 09:22:11 Jul 19
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:22:09 Jul 19
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	19-Jul	09:27:09	0.003

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:24:24 19-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.051 mg/m³
Time at maximum: 11:24:25 Jul 19
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:24:24 Jul 19
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	19-Jul	11:29:24	0.002

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:32:12 19-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.060 mg/m³
Time at maximum: 13:34:59 Jul 19
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 13:35:12 Jul 19
Overall Avg Conc: 0.002 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	19-Jul	13:37:12	0.009

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:44:31 19-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.282 mg/m³
Time at maximum: 15:49:39 Jul 19
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 15:49:01 Jul 19
Overall Avg Conc: 0.017 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	19-Jul	15:49:31	0.009

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13170

Project No.	Project Name																							
030744	Indiana Harbor Obstruction Removal																							
Samplers/Affiliation: (Print Name and Sign) Dan Lehmy				Lab P.O. No: 9132																				
Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15																		
Vac 07115	7-1-05	24hr.	Summa Can.	6L	1	X																		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[signature]	7-1-05	815	[signature]		815	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number
Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 7/28/05		Report To: Jackie Dann			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13171

Project No.	Project Name
0302-44	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TO-13/1668
Sump-Vo / 071905	7-19-05	24hr	Filter	1041.4L	7	x	x

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-19-05	815	[illegible]	7-20	815
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): ~~7-DAYS~~ 7/28/05

Report To: J. DOAN

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	Indiana Harbor
PN	030244
Date:	7/19/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	Var 071905					6:30	6:30	24 hr.	6
TO-13	Semi-Var 071905					6:30	6:30	24 hr.	1,041.4
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by: [signature]

Activities performed on site: SCREENING TOXIC PIT SEDIMENT
Weather conditions: Sunny, Hot, Humid Windy Cloudy
Analytical lab: STL COC Number: 20731-78, 13171

SAMPLING EQUIPMENT CALIBRATION LOG

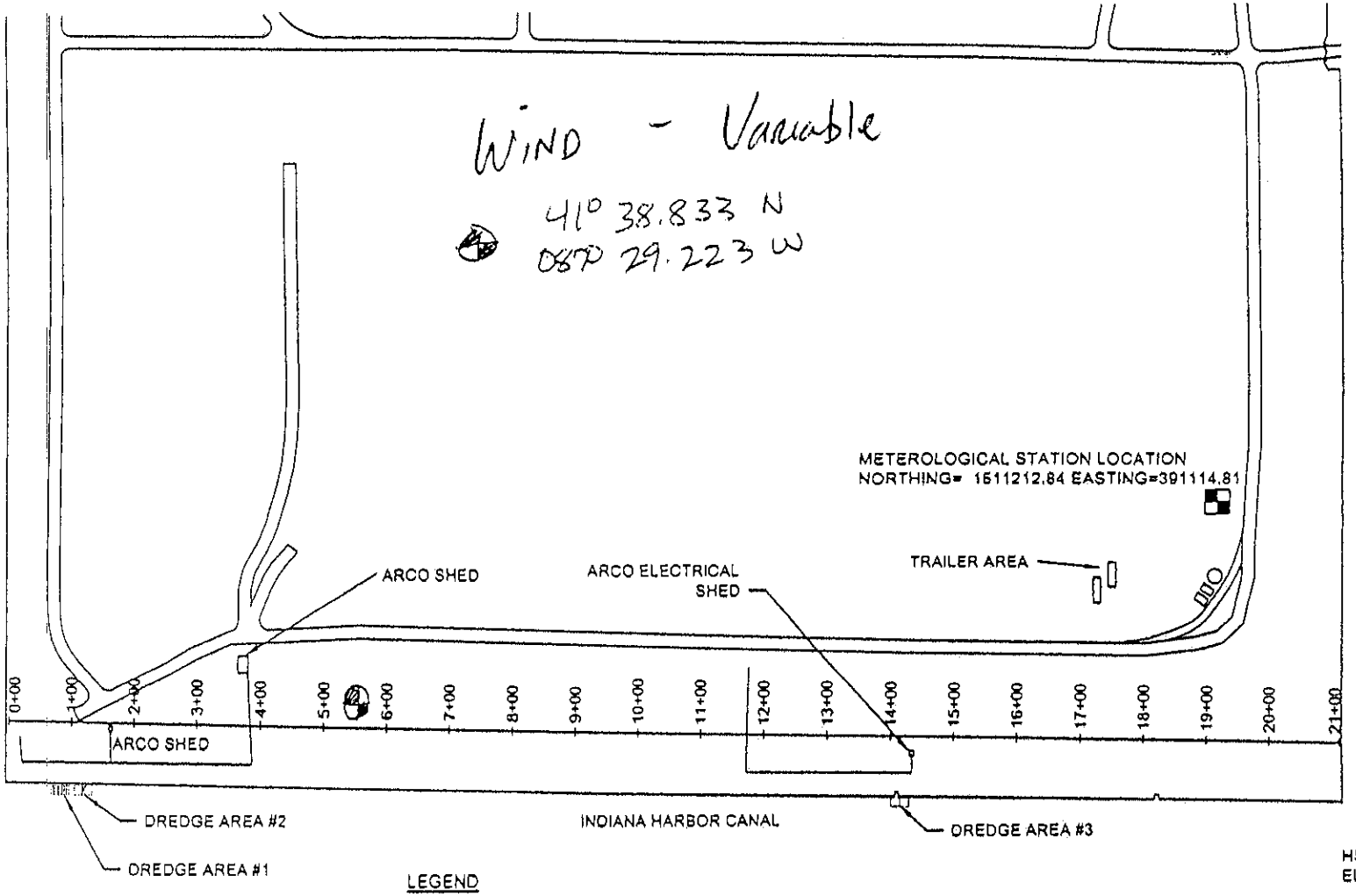
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-19-05 0815	PDL	Ben Schary	Zero Calibration	Cal OK"	Sunny Warm, Humid Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-19-05



LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

7-19-05

Enter city or US zip See weather related to GO

Get 1-click access to your local weather

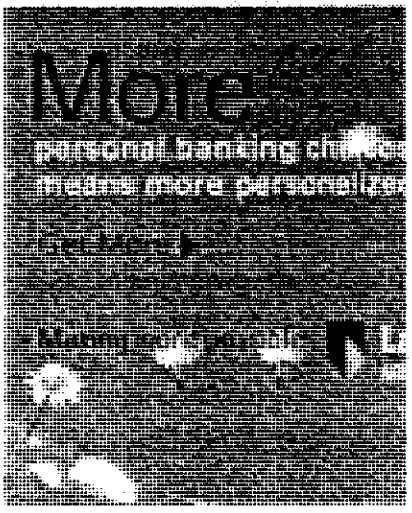
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear **63°F**	**63°F**	61°F	94%	10.0 miles	29.96	calm
	Sunrise at 5:32 AM						
5:45 AM	Sunny **63°F**	**63°F**	61°F	94%	Unlimited	29.97 ↑	calm
6:50 AM	Sunny **70°F**	**70°F**	64°F	83%	Unlimited	29.99 ↑	calm
7:45 AM	Sunny **75°F**	**76°F**	64°F	69%	Unlimited	30.01 ↑	Variable 5mph
8:50 AM	Sunny **79°F**	**80°F**	63°F	57%	Unlimited	30.02 ↑	calm
9:50 AM	Sunny **82°F**	**83°F**	61°F	48%	Unlimited	30.03 ↑	calm
10:50 AM	Partly Cloudy **84°F**	**84°F**	55°F	37%	Unlimited	30.04 ↑	From WSW 7mph
11:47 AM	Partly Cloudy **86°F**	**86°F**	57°F	37%	Unlimited	30.04 →	From WNW 9mph
12:50 PM	Partly Cloudy **91°F**	**91°F**	57°F	31%	Unlimited	30.02 ↓	From W 9mph
1:55 PM	Partly Cloudy **88°F**	**89°F**	64°F	46%	Unlimited	30.01 ↓	From NE 9mph
2:50 PM	Fair **86°F**	**86°F**	59°F	40%	10.0 miles	30.04 ↑	From NW 9mph
3:50 PM	Partly Cloudy **88°F**	**90°F**	66°F	49%	Unlimited	29.99 ↓	From NE 12mph



Today in East Chicago

- Summer Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Live local traffic reports

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local weather always on yo

Click Here for Free & Easy

Special Offers in East Chic

Travel Right with Expedia

4:53 PM	Partly Cloudy 86°F	88°F	64°F	48%	Unlimited	29.98 ↓	From NE 9mph
5:50 PM	Partly Cloudy 84°F	87°F	66°F	55%	Unlimited	29.98 →	From NE 14mph
6:50 PM	Sunny 82°F	84°F	64°F	54%	Unlimited	29.98 →	From ENE 14mph
7:50 PM	Sunny 82°F	84°F	64°F	54%	Unlimited	29.99 ↑	Variable 7mph

Sunset at 8:19 PM

8:51 PM	Clear 77°F	79°F	66°F	69%	Unlimited	30.01 ↑	calm
9:50 PM	Clear 73°F	73°F	66°F	78%	Unlimited	30.03 ↑	calm

Avg. 80° 30.01

Back to previous page

FREE Trial: Faster Radar Maps & No Ads - Learn More

Your Local Forecast brought to you by

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Expert Advice for Your Lawn
Timely Tips for Your Garden
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Home Improvement Information

More Home Planner Information
For East Chicago, IN (46312)
OR
Enter zip code or city GO!

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- Combat Mold in Your Home
- Local Mosquito Activity Levels
- Storm Alerts by E-mail

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12 PM	Weather Center

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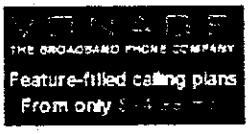
Feature Finds

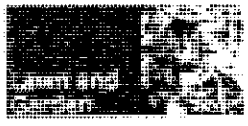


Plans start at just $14.99/month Click for details!

Monster Regional Talent

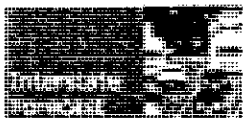
This Week's Features

Summer Lawn Care



Tips to gro yard in hot weather.

Driving Weather

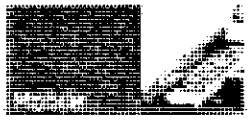


Check curr conditions

Summer Adventure

Find perfec your sumn

Mobile Weather



Track Hur cell phone

Health

REPUBLIC SERVICES, INC.

0012

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/19/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20-113

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun III — 7-19-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No.: 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area 2

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-~~BX~~ 113 3mo
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/19/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

0013

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/19/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 808 Box 20-131
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

FIRST CHOICE — 7-19-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area 2

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 808 Box 20-131
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rubdzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/19/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

0014

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20132
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE:
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0014

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/19/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20-132

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

R. LeBrun — R. LeBrun — 7-19-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

0015

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 908 Box 20130
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/19/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

SHEET 1
0015

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/19/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 803 Box 20130
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

First Choice — John Lum — 7-19-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

Area 1

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd.	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/19/05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 808 / Box 20-113

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

FIRST CHOICE — John Fraim — 7-19-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: TR 808 / Box 20-113
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rudzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7-19-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

Area 2

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20YD	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7/19/05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 721 / Box 20-112

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — Name of Authorized Agent

Signature

7-19-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

Phone No 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 / Box 20-112
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7-19-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.039	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	8100	0.008	0.008	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.062	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	38000	0.038	0.035	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.036
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.026	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.069			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.036	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5800	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.016
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.026	984.2	20000	0.020	0.026	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 244

DATE 20 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Mn 63 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

why removing pile cap @ this time?

Activities in Progress:
Thatcher continued excavation of cell one. Progress was slow due to the presence of dense sand. Divers were used to loosen the sand over the pipes. Thatcher also continued removal of the pile cap. EQ mixed dredge spoil, loaded roll off boxes and shipped 5 roll offs from all three cells. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, 12 personnel from Thatcher (including the four man dive team), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 244

DATE 20 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	10.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	5.0	40.0
Thatcher Engineering	DIVER PUMPER	4.0	32.0
	Total	16.0	130.0

Total hours worked to date: 4,196.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	0.0	8.0
6CRC2136	Small Excavator	0.0	8.0
	Total	0.0	24.0

Total operating hours to date: 832.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	7/21/5	[signature]	7/21/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 2
Start time and date: 09:32:27 20-Jul
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.060 mg/m³
Time at maximum: 09:32:29 Jul 20
Max STEL Concentration: 0.011 mg/m³
Time at max STEL: 09:45:28 Jul 20
Overall Avg Conc: 0.012 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jul	09:37:27	0.015

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:42:25 20-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.048 mg/m³
Time at maximum: 11:47:53 Jul 20
Max STEL Concentration: 0.015 mg/m³
Time at max STEL: 11:50:55 Jul 20
Overall Avg Conc: 0.026 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jul	11:47:25	0.026

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:42:05 20-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.030 mg/m³
Time at maximum: 13:42:40 Jul 20
Max STEL Concentration: 0.005 mg/m³
Time at max STEL: 13:47:05 Jul 20
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jul	13:47:05	0.014

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:50:06 20-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.020 mg/m³
Time at maximum: 15:54:09 Jul 20
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 15:54:36 Jul 20
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	20-Jul	15:55:06	0.013

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13173

Project No.	Project Name																		
0302414	Indiana Harbor Obstruction Removal																		
Samplers/Affiliation: (Print Name and Sign)					Lab P.O. No:														
[illegible] / [illegible]					9132														
Sample ID:	Date	Time	Description/Matrix:		Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668											
Semi-Vol 072005	7-20-05	24hr.	Filter		1,024.4 L	2	X	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[illegible]	7-21-05	840	[illegible]	7/21/05	840	STL - Pick up On Site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 7/29/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13172

Project No.	Project Name
0302111	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Cetkiny /EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
Va 072005	7-20-05	24hr.	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-21-05	840	[signature]	7/21/05	840
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL- Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 7/29/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: 030244
PN: Indiana Harbor
Date: 7/20/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	VOC 072005					06:30	06:30	24	6
TO-13	Semi-VO 072005					06:25	06:25	24	1,024.4
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BF
Calculations by: BF
Checked by:

Activities performed on site: Diving; Dredging; Loading Boxes; Strip Boxes
Weather conditions: Sunny, Hot, Humid
Analytical lab: STL
COC Number: COC 13172, 13173

SAMPLING EQUIPMENT CALIBRATION LOG

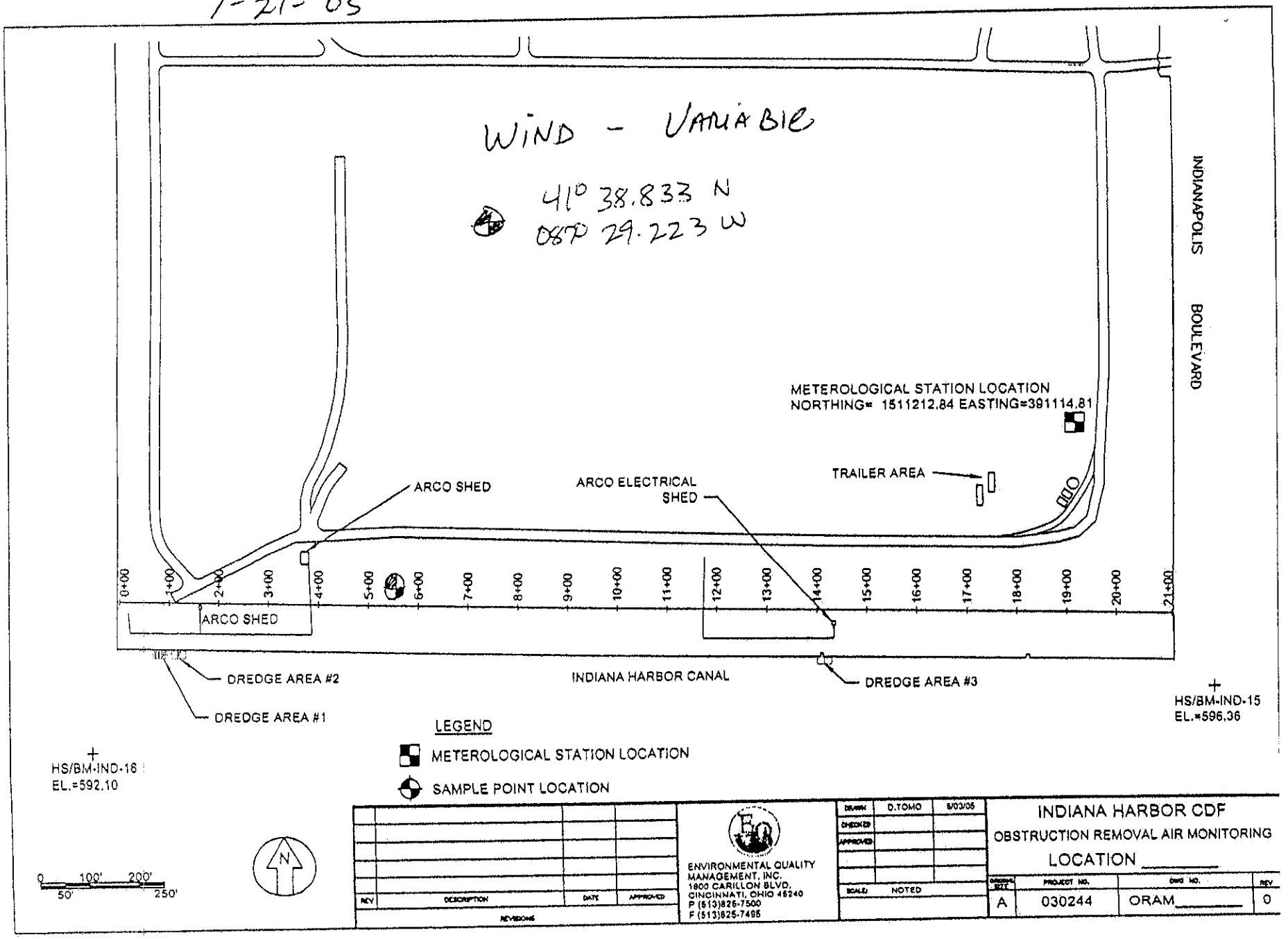
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-20-05 0810	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Hot, Humid SW WIND
7-20-05 0920	Multi-Rae	[illegible]	Freshair + Multigas	Calibrated	"

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-21-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

7-20-05

Enter city or US zip See weather related to ... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Clear 64°F	64°F	63°F	94%	Unlimited	30.02	Variable 6mph
Sunrise at 5:33 AM							
5:45 AM	Sunny 63°F	63°F	59°F	88%	Unlimited	30.04 ↑	Variable 6mph
6:50 AM	Partly Cloudy 70°F	70°F	66°F	88%	Unlimited	30.02 ↓	From SSE 9mph
7:45 AM	Partly Cloudy 75°F	77°F	66°F	73%	Unlimited	30.02 →	From SSE 9mph
8:50 AM	Partly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.03 ↑	From S 9mph
9:50 AM	Mostly Cloudy 84°F	87°F	68°F	58%	Unlimited	30.02 ↓	From S 12mph
10:50 AM	Mostly Cloudy 90°F	99°F	75°F	62%	Unlimited	29.99 ↓	From S 12mph
11:50 AM	Mostly Cloudy 91°F	102°F	75°F	59%	Unlimited	29.98 ↓	From S 12mph
12:50 PM	Cloudy 91°F	104°F	77°F	63%	Unlimited	29.96 ↓	From SSW 12mph
2:30 PM	Light Rain with Thunder 91°F	98°F	72°F	52%	3.0 miles	29.96 ↑	From SW 14mph
2:50 PM	Light Rain 86°F	95°F	75°F	70%	Unlimited	29.95 ↓	Variable 6mph

Today in East Chicago

- Summer Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Live local traffic reports

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Special Offers in East Chic

Galleria Studios - Ph

3:55 PM	Cloudy 81°F	86°F	73°F	79%	Unlimited	29.94 ↓	From S 9mph
4:45 PM	Mostly Cloudy 86°F	96°F	77°F	74%	Unlimited	29 91 ↓	From S 9mph
5:45 PM	Cloudy 86°F	96°F	77°F	74%	Unlimited	29.94 ↑	From SW 14mph
6:50 PM	Mostly Cloudy 84°F	92°F	75°F	74%	Unlimited	29.92 ↓	Variable 6mph
7:50 PM	Cloudy 84°F	94°F	77°F	79%	Unlimited	29.93 ↑	Variable 6mph
8:15 PM	Thunder in the Vicinity 84°F	92°F	75°F	74%	10.0 miles	29 94 ↑	From WSW 12mph
Sunset at 8:18 PM							
8:50 PM	Thunder in the Vicinity 81°F	83°F	68°F	65%	10.0 miles	29 95 ↑	From SW 14mph
9:50 PM	Mostly Cloudy 75°F	77°F	66°F	73%	10.0 miles	29.97 ↑	calm

Avg. 81° 29.97

Back to previous page

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Summer Lawn Care

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Driving Weather

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Summer Adventure

Find perfec your sumn

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Travel

Find your here!

27 feet
2 Pipe

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: In Harbor & Pipeline Pipe

JOB NO:
VIS:
DATE:
TEMP:

2400 Diver
3000 psi Standby
Rack 3100 psi

DIVER: Jr. Villarreal

DIVE 1		DIVE 2		DIVE 3	
Depth	30'	Depth		Depth	
LS	0812	LS		LS	
LB	1003	LB		LB	
BT	111 min	BT		BT	
DECO		RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	
TBL	35/310 min	RS		RS	
		RG		RG	
		TBL		TBL	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

REMARKS: Diver checking out area & looking for pipe

B.O. 2600 psi

DIVER: Tattin, Don

DIVE 1		DIVE 2		DIVE 3	
Depth	30'	Depth		Depth	
LS	1307	LS		LS	
LB	1351	LB		LB	
BT	min	BT		BT	
DECO		RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	
TBL	35/310 min	RS		RS	
		RG		RG	
		TBL		TBL	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

REMARKS: Checking out pipe coverage; T-Storm

DIVER:

DIVE 1		DIVE 2		DIVE 3	
Depth		Depth		Depth	
LS		LS		LS	
LB		LB		LB	
BT		BT		BT	
DECO		RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	
TBL		RS		RS	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

27 etal
8 Pp.

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: In Harbor & Canal Pipe

JOB NO:

VIS:

DATE:

TEMP:

2600 Diver

3000 psi Standby.
Rack. 3100 psi

DIVER: J. Villarreal

DIVE 1

Depth	30'
LS	0812
LB	1003
BT	111 min
DECO	
RS	
RG	
TBL	35/310 min

SI
NG
RNT

DIVE 2

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS
RG
TBL

SI
NG
RNT

DIVE 3

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS
RG
TBL

REMARKS: Diver Checking out area; Looking For pipe

B.O. 2600 psi !

DIVER: Tattin, Don

DIVE 1

Depth	30'
LS	1307
LB	1351
BT	84 min
DECO	
RS	
RG	
TBL	35/310 min

SI
NG
RNT

DIVE 2

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS
RG
TBL

SI
NG
RNT

DIVE 3

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS
RG
TBL

REMARKS: Checking out pipe coverage;
T. Storm

DIVER:

DIVE 1

Depth
LS
LB
BT
DECO
RS
RG
TBL

SI
NG
RNT

DIVE 2

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS

SI
NG
RNT

DIVE 3

Depth
LS
LB
BT
RNT +
TBT =
DECO
RS

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van	
Secondary Evacuation Point: EQ. trailer	Backup Emergency Communications: Cell.	
Fire Extinguisher Available: yes	Inspection Date: 8-05	Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: N/A [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ. trailer	Backup Emergency Communications: Cell.
Fire Extinguisher Available: yes	Inspection Date: 8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller (X) Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	W/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge. 3000 / & 2000
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAR
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall.	Life Jacket within 4' of Sea Wal
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'L in Water	Hose Diver well within work are
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OF
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging Point. Wa tt
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump.	Diver Aims away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Lad
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footin

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

02-18-05	03-20-05		

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	W/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

- [X] Have all bail-out bottle been gauge. 3000 / & 2000
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAR
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Sea wall.	Life Jacket within 4' of Sea Wal
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'L in Water	Hose Diver well within work
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction are OF
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging Point. Wa. He
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump.	Diver Aim's away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Lad
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footin

<u>All Incidents Must Be Reported Immediately</u> to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

05-18-05	05-20-05		

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

0018

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20132
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/2015
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0018

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/20/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20132

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — Rick LeBrun — 7-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

REPUBLIC SERVICES, INC.

0019

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

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On Behalf of USACE — 7/2015

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 715 Box 20-131

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

John Wolff — John Wolff — 7-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: ~~8230 W. Forest Lawn Road Three Oaks, Michigan 49128~~

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

0019

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: EAST CHICAGO WATERWAY MGMT.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 715 Box 20-131
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/2015
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-112
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 yd. (1 TON = 2,000 LBS.)
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/20/05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd.	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/20/05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20-112

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Mick LeBron — 7-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

0021

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 715 Box 20-130
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/2015
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0021

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	07/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/20/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 715 Box 20-130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

John Wolff — 07-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

AREA 1

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: EAST CHICAGO WATERWAY MGMT.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-986
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE:
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 2/20/05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0022

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-20-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 box 20-986

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Mick LeBrun — 7-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/20/2005																											
		6/20/2005				6/21/2005				6/22/2005				6/23/2005				6/24/2005				6/25/2005				6/26/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	58000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	46000	0.043	0.039	1001.7	22000	0.022	0.039	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15		1010.0	13000	0.013	0.007	1005.4	6900	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.006	1011.5	16000	0.016	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.055	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.028	0.031	1001.7	44000	0.044	0.037	1009.2	36000	0.036	0.035	951.3	26000	0.028	0.032	1011.5	55000	0.054	0.039
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046	1009.2	35000	0.035	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1600	0.001	0.001	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	6600	0.006	0.004
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total	1000.0			0.256	0.000			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.059			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1600	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	16000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.026	984.2	20000	0.020	0.026	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	36000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

AMBIENT AIR MONITORING RESULTS

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	5.416	1005.4	9100	9.051	8.102	1056.7	12000	11.356	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.086
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.882	1056.7	1200	1.136	2.052
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.306	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.366
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.060	1056.7	26000	24.605	23.125
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.095	1056.7	25000	23.659	24.274
Pyrene	938.0	1010.0	2700	2.673	1.530	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7800	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.580
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.786
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	1001.7	ND	0.250	0.306	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.385
Flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flourene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Indene(1,2,3-cd)pyrene	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.106	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Napthalene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Phenanthrene	1001.7	20000	19.966	24.888	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.581
Pyrene	1001.7	40000	39.932	29.457	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.156	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.683	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	870	0.874	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	38.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.182
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	38.709	994.8	31000	31.162	33.032
Pyrene	938.0	961.3	4200	4.369	3.677	952.3	3500	3.675	3.594	994.8	3800	3.820	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2006 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.825	1048.0	400	0.382	6.131
Acenapthylene	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.338
Benzo(ghi)perylene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	820	0.830	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	961.1	5200	5.410	8.567	983.2	960	0.976	5.815	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	961.1	7100	7.387	13.694	983.2	2100	2.136	10.158	984.2	5900	5.995	8.038	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	961.1	15000	15.807	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Week of 07/04/05

Parameter	Limit	7/4/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.815			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.650	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.806	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.516	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.887	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	18.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.682	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!

Parameter	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.096	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	6-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 245

DATE 21 Jul 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued excavation of cell one. Progress was slow due to the infiltration of sand. Divers were used to loosen the sand over the pipes. But the sand seemed to flow in as fast as it was removed. A sink hole was also found just north of the area being excavated. This was barricaded off. Thatcher also continued removal of the pile cap. EQ mixed dredge spoil, loaded roll off boxes and shipped 6 roll offs from area 1. A total of 28 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, 12 personnel from Thatcher (including the four man dive team), one operator and one laborer from Maintenance Dynamics.

General Comments:
A sink hole was discovered just north of the coffer dam for area 1. No injuries or property damage occured. Apparently there is a connection between the land side of the coffer dam and the interior of the coffer dam

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 245

DATE 21 Jul 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EDM	SAFETY ENGINEER - ON SITE		1.0	10.0
EDM	SUPER - JOB		0.0	0.0
EDM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		5.0	40.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	4,326.0	Total	16.0	130.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		0.0	8.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 856.0		Total	0.0	24.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/22/5		7/22/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 3
Start time and date: 09:27:32 21-Jul
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.040 mg/m³
Time at maximum: 09:31:47 Jul 21
Max STEL Concentration: 0.024 mg/m³
Time at max STEL: 09:42:02 Jul 21
Overall Avg Conc: 0.024 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jul	09:32:32	0.028

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:19:21 21-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.135 mg/m³
Time at maximum: 11:24:37 Jul 21
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 11:25:22 Jul 21
Overall Avg Conc: 0.049 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jul	11:24:21	0.045

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:14:27 21-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.302 mg/m³
Time at maximum: 13:15:19 Jul 21
Max STEL Concentration: 0.032 mg/m³
Time at max STEL: 13:20:28 Jul 21
Overall Avg Conc: 0.079 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jul	13:19:27	0.083

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:05:36 21-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.169 mg/m³
Time at maximum: 15:08:09 Jul 21
Max STEL Concentration: 0.019 mg/m³
Time at max STEL: 15:11:36 Jul 21
Overall Avg Conc: 0.048 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21-Jul	15:10:36	0.046

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13175

Project No.	Project Name	
0302441	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign)		Lab P.O. No:
[illegible] / [illegible] / EQM		9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TC-13 K220	TESTS: TC-13 1164.2
Sam. Vol 072105	7-21-05	24hr	Filter	989 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-22-05	9:23	[illegible]	7/22/05	9:23
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up On Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Day 8/1/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13174

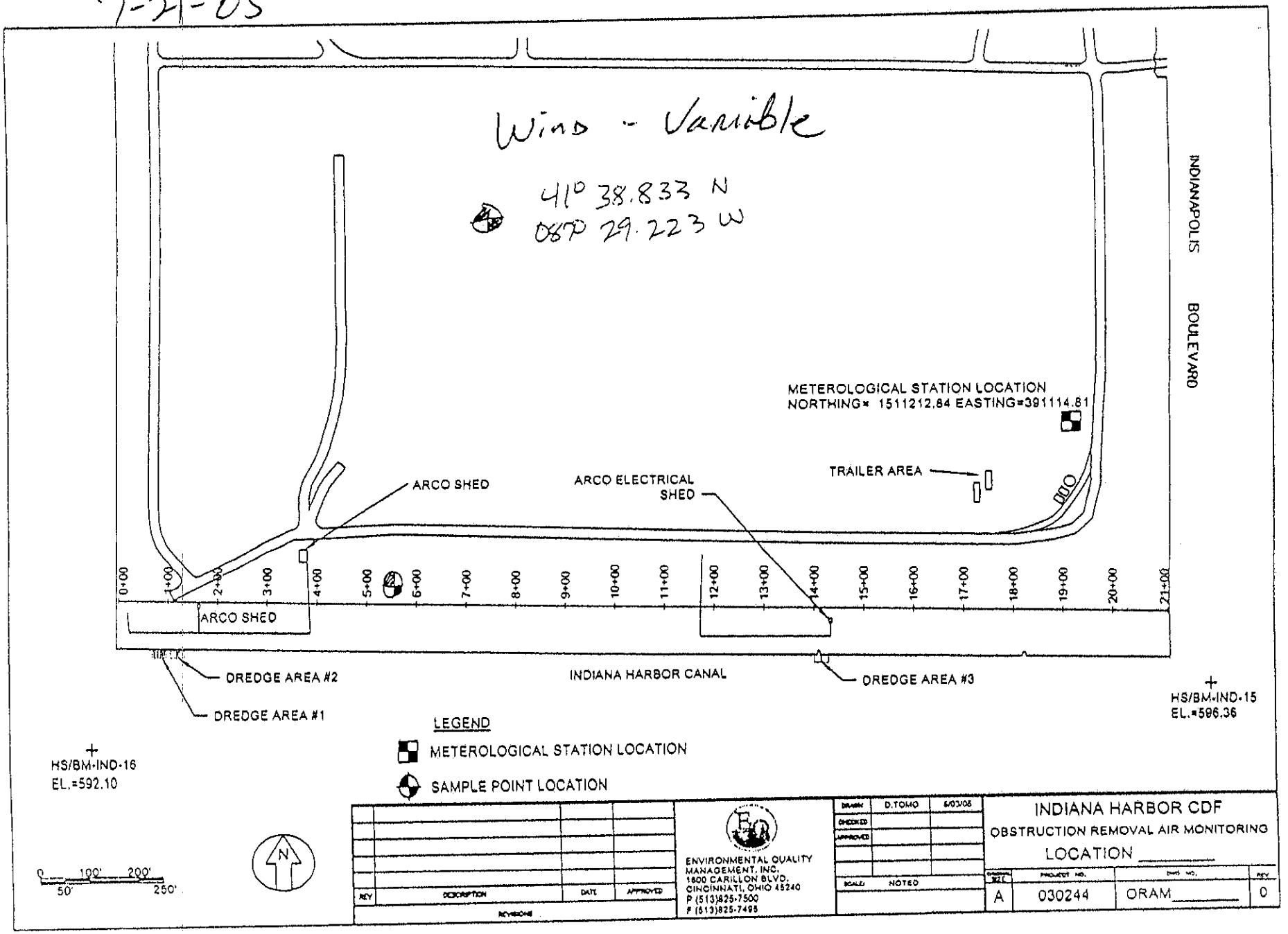
Project No.	Project Name	
030214	Fairlawn Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign) Ben Lotring, [illegible]	12QM	Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TEST: 5/10
VOC 072105	7-21-05	24hr.	Surface Water	Col	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
[illegible]	7-22-05	9:23	[illegible]	7/22/05	7:23	STL - Pick up on Site.
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number
Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7 Day 8/1/05		Report To: Jackie Dunn			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

7-21-05


Wind - Variable
41° 38.833 N
087° 29.223 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV DESCRIPTION DATE APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV 0

Site: Indiana Harbor
PN 030244
Date: 7/21/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, min. hr.	Air Volume, liters
TO-15	Va 072405					0 : 6 30	06 : 25	24	6
TO-13	Sri Vol 072405					06 : 30	06 : 25	24	989.0L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BF
Calculations by: BF
Checked by:

Activities performed on site: Diving, Dredging, Ship Sight
Weather conditions: Sunny, Hot, Humid, Variable WIND
Analytical lab: SL
COC Numbers: 13174, 13175

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Inlinna Harbor Obstruction Removal Project No.: 030214

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-21-05 0842	PDR	[illegible]	Zero Calibration	Cal OK"	Sunny, Hot, Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-21-05

Enter city or US zip See weather related to .... GO

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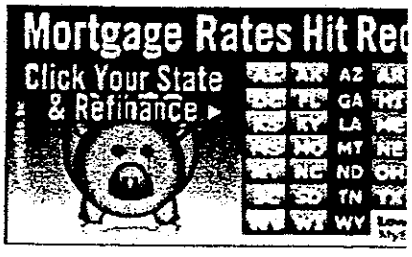
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

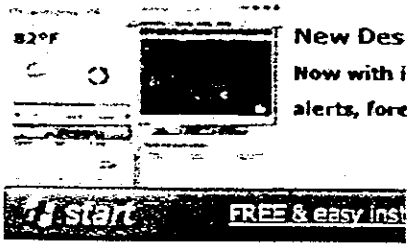
Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Cloudy 75°F	77°F	68°F	78%	Unlimited	30.00	Variable 6mph
	Sunrise at 5:34 AM						
5:50 AM	Mostly Cloudy 73°F	73°F	68°F	83%	Unlimited	29.99 ↓	calm
6:50 AM	Mostly Cloudy 75°F	78°F	70°F	83%	Unlimited	30.01 ↑	calm
7:50 AM	Mostly Cloudy 79°F	81°F	68°F	69%	Unlimited	30.01 →	From SW 7mph
8:50 AM	Mostly Cloudy 81°F	83°F	68°F	65%	Unlimited	30.01 →	From SW 9mph
9:50 AM	Mostly Cloudy 84°F	89°F	72°F	66%	Unlimited	29.99 ↓	From SW 9mph
10:50 AM	Mostly Cloudy 91°F	104°F	77°F	63%	Unlimited	30.01 ↑	From WSW 9mph
11:50 AM	Mostly Cloudy 91°F	102°F	75°F	59%	Unlimited	30.00 ↓	From W 9mph
12:50 PM	Mostly Cloudy 91°F	102°F	75°F	59%	10.0 miles	29.98 ↓	From N 9mph
1:50 PM	Mostly Cloudy 88°F	99°F	77°F	70%	Unlimited	30.00 ↑	From N 7mph
2:06 PM	Thunder 84°F	92°F	75°F	74%	Unlimited	30.01 ↑	From NNW 7mph
2:50	Mostly Cloudy	89°F	72°F	66%	Unlimited	29.95 ↓	From NE





Today in East Chicago

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PM	84°F						17mph
3:00 PM	Mostly Cloudy 84°F	89°F	72°F	66%	Unlimited	29.95 →	From NE 17mph
3:50 PM	Cloudy 81°F	84°F	70°F	70%	Unlimited	29.97 ↑	From ENE 12mph
4:50 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	29.94 ↓	From E 12mph
5:55 PM	Mostly Cloudy 84°F	88°F	70°F	62%	10.0 miles	29.94 →	calm
6:50 PM	Partly Cloudy 82°F	88°F	73°F	74%	10.0 miles	29.93 ↓	calm
7:50 PM	Partly Cloudy 81°F	86°F	73°F	79%	10.0 miles	29.91 ↓	calm
Sunset at 8:18 PM							
8:55 PM	Mostly Cloudy 79°F	83°F	73°F	83%	10.0 miles	29.95 ↑	From N 9mph
9:50 PM	Mostly Cloudy 77°F	81°F	73°F	89%	10.0 miles	29.98 ↑	From NE 9mph

Avg. 82° 29.98

Back to previous page

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Tips to gro yard in hot weather.

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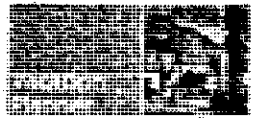

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REPUBLIC SERVICES, INC.

0023

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/21/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 717 Bix 20-941

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

TOM SIMPSON — 7-21-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

0023

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 717 Box 20-941
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE:
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE:
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0004
Area 1

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE 7/21/5

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 716 Box 20-131
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Jim Fox 7-21-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

Area 1
0024

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20-(3)
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0025

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/21/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20-113

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

R LeBron — Rick LeBron — 7-21-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area #1

0025

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-113
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0026

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/21/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 717 Box 20-132

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials

TOM SIMPSON — 7-21-05

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

0026

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 717 Box 20-132
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0027

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

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On Behalf of USACE — 7/21/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 716 20-112

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Jim Tank — 7-21-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No: 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Department of Environmental Quality, Waste and Hazardous Materials Division

Page 1
0027

UNIFORM SOLID WASTE RECORD

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GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20112
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
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HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rubizitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
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	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0028

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/21/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20986

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

R LeBrun — R LeBrun — 7-21-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

UNIFORM SOLID WASTE RECORD

0028

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20986
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Tn. Harbor Pipe Removal

JOB NO: 072 DATE: 7-21-05

VIS: TEMP:

DIVER: Stoughtis

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0809	NG	LS	NG		LS	
LB	1033	RNT	LB	RNT		LB	
BT	144 min		BT			ST	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35'/310 min		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Setting around pipes 1 & 2

B.O 2600 Standby 3100

DIVER: Jack Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	1219	NG	LS	NG		LS	
LB	1352	RNT	LB	RNT		LB	
BT	73 min		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35'/310		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Jack Watch to 74 Pipes

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew W/a [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

[X] Have all bail-out bottle been gauge. 3000 / & 2000

[X] Have communications been tested in dive helmets.

[ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a

[X] Ladders installed and secured in place.

[ ] Pump Equipment checked out W/a.

[X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.

[X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall.	Life Jacket within 4' of Seawall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'l in Water	Hose Diver well within work area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OFF
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging points. Wat
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump.	Diver Aim away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

05-18-05	05-20-05	05-21-05	

Onyx Special Services, Inc MARINE SERVICES Job Safety An

140159E-05-072 Pipe Removal.

Plant: La Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ. trailer	Backup Emergency Communications: Cell
Fire Extinguisher Available: yes	Inspection Date: 8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather For All Hydroblasting Operations: [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller (X) Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher
Ca. Harbor Pipe ~~Hat~~ Removal

JOB NO: 072 DATE: 7-2-05
VIS: TEMP:

DIVER: Stoumitis

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	SI		Depth	
LS	0909	NG	LS	NG		LS	
LB	0933	RNT	LB	RNT		LB	
BT	144 min		BT			ST	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35 A / 310 min		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Setting around pipes 1 & 2

B.O 2600 Standby 3100

DIVER: Jack Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	1219	NG	LS	NG		LS	
LB	1352	RNT	LB	RNT		LB	
BT	73 min		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35 / 310		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Jackhammer to 7th pipes.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew W/a [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met

Place an "X" next to each item needed for the job.

[X] Have all bail-out bottle been gauge. 3100 / & 2000'

[X] Have communications been tested in dive helmets.

[ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a

[X] Ladders installed and secured in place.

[ ] Pump Equipment checked out W/a.

[X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.

[X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Sea wall.	Life Jacket within 4' of Sea Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'l in Water	Hose Diver well within work area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OFF water hos
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging points
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump	Diver Aim's away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Lad
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

05-18-05	05-20-05	05-21-05	

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety An**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ. trailer	Backup Emergency Communications: Cell
Fire Extinguisher Available: yes	Inspection Date: 8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvex For Diver Wash Down

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Dive Helmet ( ) Superlite ( ) Miller (X) Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/20/2005

Parameter	Limit	6/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1010.0	56000	0.057	0.031	1005.4	31000	0.031	0.032	1056.7	45000	0.043	0.039	1001.7	22000	0.022	0.039
PCB 15		1010.0	13000	0.013	0.007	1005.4	6800	0.007	0.007	1056.7	8900	0.008	0.009	1001.7	7900	0.008	0.009
PCB18		1010.0	110000	0.109	0.052	1005.4	48000	0.048	0.066	1056.7	71000	0.067	0.067	1001.7	69000	0.069	0.076
PCB28		1010.0	46000	0.046	0.026	1005.4	22000	0.022	0.026	1056.7	30000	0.029	0.031	1001.7	44000	0.044	0.037
PCB31		1010.0	59000	0.058	0.030	1005.4	28000	0.028	0.030	1056.7	49000	0.046	0.039	1001.7	47000	0.047	0.046
PCB77		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB81		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB105		1010.0	1900	0.002	0.001	1005.4	1200	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	1500	0.001	0.001
PCB114		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB118		1010.0	4500	0.004	0.002	1005.4	2800	0.003	0.003	1056.7	2200	0.002	0.003	1001.7	3300	0.003	0.003
PCB123		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB126		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB156		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB157		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB167		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB169		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB170		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
PCB180		1010.0	1200	0.001	0.001	1005.4	1100	0.001	0.001	1056.7	ND	0.000	0.001	1001.7	2100	0.002	0.001
PCB189		1010.0	ND	0.000	0.000	1005.4	ND	0.000	0.000	1056.7	ND	0.000	0.000	1001.7	ND	0.000	0.000
Total	1000.0			0.296	0.000			0.000	0.059			0.000	0.059			0.000	0.059

Parameter	6/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1009.2	19000	0.019	0.034	951.3	39000	0.041	0.031	1011.5	87000	0.086	0.042
PCB 15	1009.2	8200	0.008	0.009	951.3	6100	0.006	0.008	1011.5	16000	0.016	0.009
PCB18	1009.2	70000	0.069	0.072	951.3	32000	0.034	0.057	1011.5	99000	0.098	0.067
PCB28	1009.2	38000	0.038	0.036	951.3	25000	0.026	0.032	1011.5	55000	0.054	0.038
PCB31	1009.2	35000	0.036	0.043	951.3	24000	0.025	0.036	1011.5	61000	0.060	0.043
PCB77	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB81	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB105	1009.2	1600	0.002	0.001	951.3	1600	0.002	0.001	1011.5	2200	0.002	0.001
PCB114	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB118	1009.2	3600	0.004	0.003	951.3	3800	0.004	0.003	1011.5	5500	0.005	0.004
PCB123	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB126	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB156	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB157	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB167	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB169	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB170	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
PCB180	1009.2	2100	0.002	0.001	951.3	2100	0.002	0.002	1011.5	2400	0.002	0.002
PCB189	1009.2	ND	0.000	0.000	951.3	ND	0.001	0.000	1011.5	ND	0.000	0.000
Total			0.000	0.059			0.000	0.000			0.000	0.000

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.063
PCB 15		961.3	6700	0.007	0.056	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037

Parameter	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	983.2	8900	0.009	0.038	984.2	23000	0.023	0.036	1048.0	39000	0.037	0.035
PCB 15	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8600	0.008	0.007
PCB18	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	983.2	7800	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.026
PCB77	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1098.0		0.000	0.011		0	#DIV/0!	#DIV/0!
PCB 15		1027.0	10000	0.010	0.016	1098.0		0.000	0.013	0.0		#DIV/0!	#DIV/0!
PCB18		1027.0	33000	0.032	0.022	1098.0		0.000	0.017	0.0		#DIV/0!	#DIV/0!
PCB28		1027.0	32000	0.031	0.024	1098.0		0.000	0.019	0.0		#DIV/0!	#DIV/0!
PCB31		1027.0	42000	0.041	0.009	1098.0		0.000	0.008	0.0		#DIV/0!	#DIV/0!
PCB77		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB81		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB105		1027.0	1300	0.001	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB114		1027.0	ND	0.000	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB118		1027.0	2900	0.003	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB123		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB126		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB156		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB157		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB167		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB169		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB170		1027.0	ND	0.000	0.001	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
PCB180		1027.0	1700	0.002	0.001	1098.0		0.000	0.001	0.0		#DIV/0!	#DIV/0!
PCB189		1027.0	ND	0.000	0.000	1098.0		0.000	0.000	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		0	#DIV/0!	#DIV/0!		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.033			0.000	0.033			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS

Week of 06/20/05

Parameter	Limit	6/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1010.0	12000	11.881	6.416	1005.4	9100	9.051	5.102	1056.7	12000	11.358	10.145
Acenapthylene	1875.0	1010.0	11000	10.891	2.548	1005.4	1100	1.094	2.716	1056.7	2100	1.987	3.066
Anthracene	9376.0	1010.0	850	0.842	1.823	1005.4	550	0.547	1.862	1056.7	1200	1.136	2.062
Benzo(a)anthracene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(b)flouranthene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(k)flouranthene	35.0	1010.0	ND	0.248	0.308	1005.4	ND	0.249	0.305	1056.7	ND	0.237	0.305
Benzo(ghi)perylene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(a)pyrene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Benzo(e)pyrene		1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Chrysene	355.0	1010.0	ND	0.248	0.312	1005.4	ND	0.249	0.311	1056.7	540	0.511	0.388
Dibenzo(a,h)anthracene	0.4	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Flouranthene	1250.0	1010.0	3600	3.564	1.852	1005.4	3200	3.183	2.248	1056.7	2700	2.555	2.711
Flourene	1250.0	1010.0	14000	13.861	7.368	1005.4	8600	8.554	8.396	1056.7	13000	12.302	10.609
Indene(1,2,3-cd)pyrene	4.0	1010.0	ND	0.248	0.241	1005.4	ND	0.249	0.241	1056.7	ND	0.237	0.241
Napthalene	30.0	1010.0	27000	26.733	17.092	1005.4	20000	19.893	19.080	1056.7	26000	24.605	23.125
Phenanthrene	9376.0	1010.0	29000	28.713	17.785	1005.4	20000	19.893	20.086	1056.7	25000	23.659	24.274
Pyrene	938.0	1010.0	2700	2.673	1.630	1005.4	2100	2.089	1.747	1056.7	2700	2.555	2.210

Parameter	6/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1001.7	17000	16.971	11.483	1009.2	22000	21.799	14.212	951.3	6600	6.938	13.223	1011.5	16000	15.818	14.577
Acenapthylene	1001.7	1800	1.797	3.201	1009.2	7600	7.531	4.660	951.3	680	0.715	2.625	1011.5	880	0.870	2.560
Anthracene	1001.7	1000	0.998	1.084	1009.2	1300	1.288	0.962	951.3	ND	0.263	0.846	1011.5	ND	0.247	0.788
Benzo(a)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(b)flouranthene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(k)flouranthene	1001.7	ND	0.250	0.308	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(ghi)perylene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(a)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Benzo(e)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Chrysene	1001.7	ND	0.250	0.369	1009.2	ND	0.248	0.301	951.3	ND	0.263	0.304	1011.5	660	0.652	0.365
Dibenzo(a,h)anthracene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Flouranthene	1001.7	7500	7.487	4.022	1009.2	9400	9.314	5.221	951.3	3900	4.100	5.328	1011.5	5800	5.734	5.838
Flourene	1001.7	13000	12.978	10.962	1009.2	18000	17.836	13.108	951.3	8400	8.830	12.100	1011.5	20000	19.773	14.344
Indene(1,2,3-cd)pyrene	1001.7	ND	0.250	0.244	1009.2	ND	0.248	0.246	951.3	ND	0.263	0.249	1011.5	ND	0.247	0.249
Napthalene	1001.7	20000	19.966	24.688	1009.2	40000	39.635	26.166	951.3	43000	45.201	29.860	1011.5	44000	43.500	34.581
Phenanthrene	1001.7	40000	39.932	28.467	1009.2	50000	49.544	32.348	951.3	20000	21.024	30.810	1011.5	35000	34.602	33.752
Pyrene	1001.7	4100	4.093	2.851	1009.2	4800	4.756	3.233	951.3	2000	2.102	3.119	1011.5	3100	3.065	3.314

Week of 06/27/05

Parameter	Limit	6/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	20.805	16.466	952.3	17000	17.852	16.642	994.8	12000	12.063	14.695
Acenapthylene	1875.0	961.3	760	0.791	2.341	952.3	1100	1.155	2.212	994.8	1400	1.407	0.988
Anthracene	9376.0	961.3	500	0.520	0.663	952.3	570	0.599	0.583	994.8	ND	0.251	0.376
Benzo(a)anthracene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(b)flouranthene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(k)flouranthene	35.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	670	0.674	0.341
Benzo(ghi)perylene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(a)pyrene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Benzo(e)pyrene		961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Chrysene	355.0	961.3	ND	0.260	0.335	952.3	ND	0.263	0.337	994.8	790	0.794	0.446
Dibenzo(a,h)anthracene	0.4	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Flouranthene	1250.0	961.3	8000	8.322	6.991	952.3	6700	7.036	6.901	994.8	6300	6.333	6.305
Flourene	1250.0	961.3	16000	16.644	15.212	952.3	12000	12.601	15.137	994.8	12000	12.063	13.982
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	0.260	0.253	952.3	ND	0.263	0.256	994.8	ND	0.251	0.257
Napthalene	30.0	961.3	31000	32.248	36.110	952.3	53000	55.655	43.248	994.8	59000	59.308	47.162
Phenanthrene	9376.0	961.3	39000	40.570	37.134	952.3	36000	37.803	36.709	994.8	31000	31.162	33.032
Pyrene	938.0	961.3	4200	4.369	3.877	952.3	3600	3.675	3.594	994.8	3600	3.620	3.406

Parameter	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	961.1	540	0.562	0.857	983.2	550	0.559	0.695	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	961.1	680	0.708	0.485	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.418	1048.0	5900	5.630	22.411
Phenanthrene	961.1	25000	26.012	34.030	983.2	5400	5.492	26.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Week of 07/04/05

Parameter	Limit	7/4/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	9.056	5.530	1098.0		0.000	3.615			#DIV/0!	#DIV/0!
Acenapthylene	1875.0	1027.0	780	0.759	0.650	1098.0		0.000	0.538	0.0		#DIV/0!	#DIV/0!
Anthracene	9376.0	1027.0	700	0.682	0.427	1098.0		0.000	0.286	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	35.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene		1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Chrysene	355.0	1027.0	ND	0.243	0.325	1098.0		0.000	0.273	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.4	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Flouranthene	1250.0	1027.0	3700	3.603	2.806	1098.0		0.000	1.724	0.0		#DIV/0!	#DIV/0!
Flourene	1250.0	1027.0	6900	6.719	5.510	1098.0		0.000	4.039	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	0.243	0.250	1098.0		0.000	0.198	0.0		#DIV/0!	#DIV/0!
Napthalene	30.0	1027.0	12000	11.685	12.887	1098.0		0.000	9.765	0.0		#DIV/0!	#DIV/0!
Phenanthrene	9376.0	1027.0	23000	22.395	16.475	1098.0		0.000	11.273	0.0		#DIV/0!	#DIV/0!
Pyrene	938.0	1027.0	2000	1.947	1.682	1098.0		0.000	1.100	0.0		#DIV/0!	#DIV/0!

Parameter	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of																				
		6/20/2005			6/21/2005			6/22/2005			6/23/2005			6/24/2005			6/25/2005			6/26/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.450	0.141	0.186	0.380	0.119	0.118	0.440	0.138	0.118	0.210	0.066	0.136	0.440	0.138	0.130	0.740	0.232	0.138	0.860	0.269	0.168
Ethyl Benzene	3565.0	0.120	0.028	0.039	0.096	0.022	0.020	0.094	0.022	0.020	0.055	0.013	0.023	0.094	0.022	0.022	0.120	0.028	0.021	0.140	0.032	0.023
Toluene	9065.0	0.920	0.244	0.306	0.660	0.175	0.168	0.640	0.170	0.168	0.430	0.114	0.188	0.640	0.170	0.188	1.100	0.292	0.184	1.300	0.345	0.218
Xylene	62510.0	0.460	0.106	0.154	0.365	0.084	0.083	0.450	0.104	0.083	0.245	0.056	0.097	0.450	0.104	0.098	0.430	0.099	0.089	0.570	0.131	0.099

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023		0.000	0.000		0.000	0.000
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004		0.000	0.000		0.000	0.000
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031		0.000	0.000		0.000	0.000
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011		0.000	0.000		0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 246 Page 1 of 2 DATE 22 Jul 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 75 °F, Max 88 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

EQ excavated out the sink hole in an effort to relieve pressure on the sand flowing into the coffer dam. Thatcher continued excavation of cell one. Progress was slow due to the infiltration of sand. Divers were used to loosen the sand over the pipes. But the sand seemed to flow in as fast as it was removed. Work was stopped as being unproductive. EQ will contact USACE and set up a conference call to discuss the problem and potential responses. EQ mixed dredge spoil, loaded roll off boxes and shipped 5 roll offs from area 1. A total of 33 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, 12 personnel from Thatcher (including the four man dive team), one operator and one laborer from Maintenance Dynamics.

General Comments:

None

Verbal Instructions given by Government:

None.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 246 Page 2 of 2 DATE 22 Jul 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912F5-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
BCM	SAFETY ENGINEER - ON SITE		1.0	10.0
BCM	SUPER - JOB		0.0	0.0
BCM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		1.0	8.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	4,424.0	Total	12.0	98.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 872.0		Total	8.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:15:59 22-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.182 mg/m³
Time at maximum: 10:17:33 Jul 22
Max STEL Concentration: 0.007 mg/m³
Time at max STEL: 10:18:59 Jul 22
Overall Avg Conc: 0.015 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jul	10:20:59	0.022

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:13:15 22-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.085 mg/m³
Time at maximum: 12:14:40 Jul 22
Max STEL Concentration: 0.006 mg/m³
Time at max STEL: 12:18:15 Jul 22
Overall Avg Conc: 0.020 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jul	12:18:15	0.017

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:49:06 22-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.208 mg/m³
Time at maximum: 13:54:02 Jul 22
Max STEL Concentration: 0.013 mg/m³
Time at max STEL: 13:54:06 Jul 22
Overall Avg Conc: 0.038 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jul	13:54:06	0.04

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:04:35 22-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.540 mg/m³
Time at maximum: 15:04:36 Jul 22
Max STEL Concentration: 0.018 mg/m³
Time at max STEL: 15:11:05 Jul 22
Overall Avg Conc: 0.042 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Jul	15:09:35	0.035

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13177

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Cetany [signature] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 70-3/8270	TESTS: 78-13/1668
Omi-Vol 072205	7-22-05	24hr.	Filter	979.5 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-22-05	8:05	[signature]	7/22/05	8:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop at STL Valpo For Shippment

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/1/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13176

oject No.: 0307-44

Project Name: Indiana Harbor Obstruction Removal

mplers/Affiliation: (Print Name and Sign): Ben Letang, [signature] / EQM

Lab P.O. No: 9132

ample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 072705	7-27-05	2:1hr.	Summa Canister	6L	1	X

inquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-27-05	[illegible]	[signature]	[illegible]	[illegible]
inquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
inquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: Drop at STL Valpo for Shipment

Airbill Number:

orting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-Days 8/1/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN 030244
Date: 7/22/05
Page: 1 of 1

SAMPLING DATA SHEET

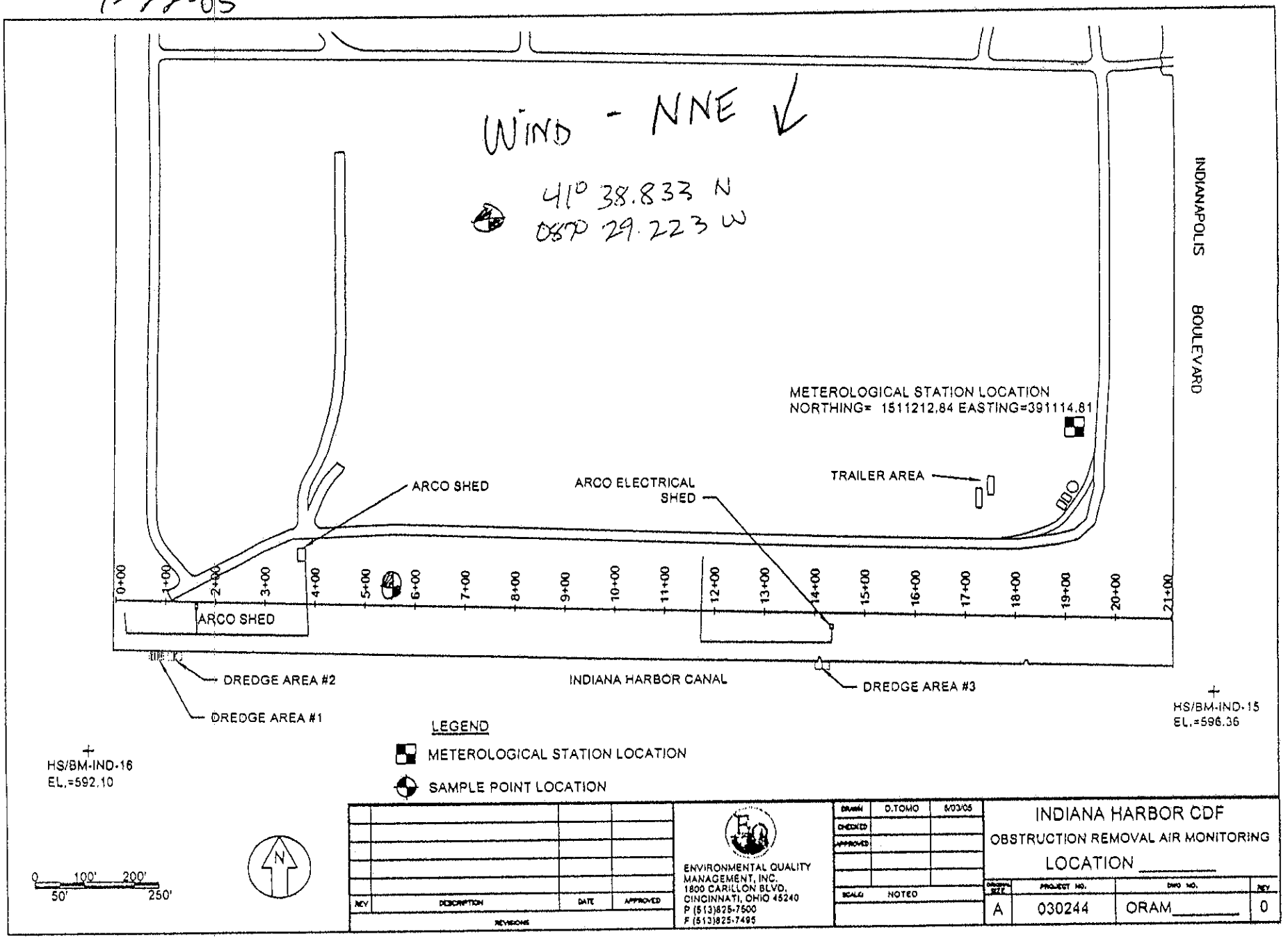
Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	IHC072205					06:30	06:30	24	6 *
TO-13	SpniV0	072205				06:25	06:25	24	979.5L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: BL
Calculations by: BL
Checked by:

Activities performed on site: Diving, Dredging, Ship Sediment
Weather conditions: Overcast warm, NNE wind
Analytical lab: STL
COC Number: CQ 13176, 13177

* Sumc Reg. was at 0 after 8 hrs., sample chain sheet from lab says its 24 hr. reg. But looks like 8 hr. reg.

7-22-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Fairlane Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-22-05 0918	DOR	[illegible]	2020 Calibration	"CD OE"	Sunny, warm HE Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

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7-22-05

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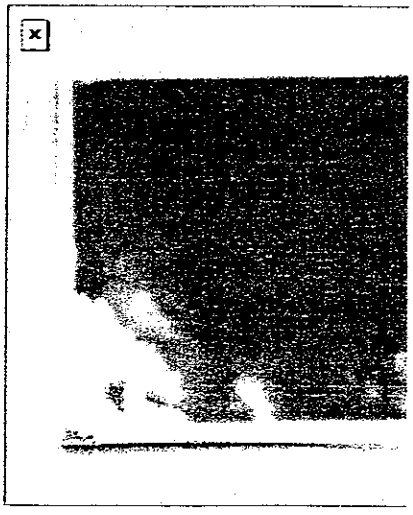
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Partly Cloudy 75°F	78°F	72°F	89%	10.0 miles	30.02	From N 12mph
	Sunrise at 5:35 AM						
6:50 AM	Mostly Cloudy 75°F	78°F	72°F	89%	Unlimited	30.03 ↑	From N 9mph
7:50 AM	Mostly Cloudy 79°F	83°F	72°F	78%	Unlimited	30.04 ↑	From NNE 9mph
8:50 AM	Mostly Cloudy 79°F	83°F	72°F	78%	Unlimited	30.06 ↑	From NNE 9mph
9:50 AM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	30.07 ↑	From NNE 12mph
10:45 AM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	30.08 ↑	From N 9mph
11:50 AM	Mostly Cloudy 82°F	88°F	73°F	74%	10.0 miles	30.10 ↑	From N 12mph
12:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	10.0 miles	30.11 ↑	From N 12mph
1:45 PM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	30.12 ↑	From N 12mph
2:53 PM	Partly Cloudy 81°F	85°F	72°F	74%	10.0 miles	30.10 ↓	From N 9mph
3:45 PM	Sunny 81°F	85°F	72°F	74%	7.0 miles	30.10 →	From N 9mph
4:45	Sunny						From N



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- Scenic drive ideas
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start

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Special Offers in East Chic

PM	81°F	85°F	72°F	74%	7.0 miles	30.10 →	9mph
5:45 PM	Sunny 81°F	86°F	73°F	79%	7.0 miles	30.09 ↓	From N 9mph
6:50 PM	Partly Cloudy 79°F	83°F	72°F	78%	10.0 miles	30.09 →	From NNE 9mph
7:45 PM	Partly Cloudy 77°F	81°F	73°F	89%	10.0 miles	30.09 →	From NNE 9mph
Sunset at 8:17 PM							
8:50 PM	Partly Cloudy 75°F	78°F	72°F	89%	Unlimited	30.11 ↑	From NNE 9mph
9:48 PM	Partly Cloudy 75°F	78°F	70°F	83%	Unlimited	30.11 →	From NNE 9mph

Avg 79° 30.08

Back to previous page

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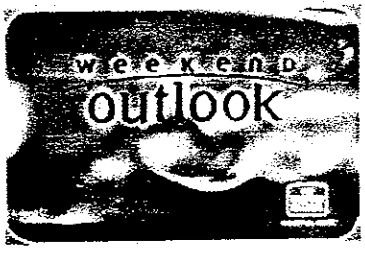

On-Air Schedule (ET)

Now	Weekend Outlook
7 AM	Weekend Planner
11 PM	Weekend Now

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CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng. JOB NO: 072 DATE: 7-28-05

VIS: 0 TEMP: 75

DIVER: D. Hansal

B.O 2600 psi

Standby 3100 psi

DIVE 1			DIVE 2			DIVE 3		
Depth	30	SI	Depth		SI	Depth		
LS	0919	NG	LS		NG	LS		
LB	1140	RNT	LB		RNT	LS		
BT	141 TBT		BT			ST		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL	35/310 max		RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diver Exposing Pipes using Jet & 8" Airlift.

No Second Dive today.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng. JOB NO: 072 DATE: 7-28-85

VIS: 0 TEMP:

PSI

DIVER: Villarreal

B.O 2600

Standby 3100 PSI

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	SI		Depth	
LS	0:10	NG	LS	NG		LS	
LB	1:40	RNT	LB	RNT		LB	
BT	141 TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35/310 min		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Exploring Pipes using Jet & 8" Air lift.

No Second Dive today.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal.

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ. Trailer	Backup Emergency Communications: Cell.
Fire Extinguisher Available: yes	Inspection Date: 8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the Job.

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:
[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____
[ ] Full Face Respirator: Facepiece Model #: N/A [ ] Cartridge Type:
[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**
Dive Helmet ( ) Superlite ( ) Miller (X) Desco ( ) Band mask ( ) Aga ( ) other

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal

Plant: In Harbor Canal.	Contact: Van Sutton = Thatcher	Date: 7-18-05
Location/Unit:	Time JSA Completed: 0900	Person Initiating JSA: Beaudoin
Plant Emergency #:	Emergency Shower and Eyewash Location:	
Supervisor's Name: Beaudoin	Job Description: Pipe Removal.	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: no wind	Primary Evacuation Point: Dive Van
Secondary Evacuation Point: EQ. Trailer	Backup Emergency Communications: Cell.
Fire Extinguisher Available: yes	Inspection Date: 8-05 Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: Tyvek For Diver Wash Down

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Dive Helmet ( ) **Superlite** ( ) **Miller** (X) **Desco** ( ) **Band mask** ( ) **Aga** ( ) **other**

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around Noisy (area) Equip.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	W/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge. 3000 / & 2000
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Sea Wall	Life Jacket within 4' of Sea Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'l in Water	Hose Diver well within working area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction OFten
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging points. watch Hoses
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump	Diver Aims away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards)	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY!

05-18-05	05-20-05	05-21-05	05-22-05
Jack Beaulieu	Jack Beaulieu	Jack Beaulieu	Jack Beaulieu
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Ed Schmitt

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew W/a [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge. 3000 / & 2600
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation W/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out W/a
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LifeJacket within 4' of Sea Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil Mat'L in Water	Hose Diver well within working area
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust (Divers Compressor)	Check Wind Direction Often
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Removing Pipe Section	Careful of Rigging points. Watch Hoses
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet Pump	Diver Aim's away From Self
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact on Ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run / watch Footing

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

05-18-05	05-20-05	05-21-05	05-22-05
Jack Beaudoin	Jack Beaudoin	Jack Beaudoin	Jack Beaudoin
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Ed Schmitt

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

0029

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20 941
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE:
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Ruhdzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/22/15

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0029

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/22/15

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 716 Box 20 941

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Jim Ford — 7-22-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2
0030

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20 952
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/22/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA #7

0030

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/22/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 952

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LaBrem — 7-22-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2
0031

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20127
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur R. Widzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/22/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA #2

0031

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/22/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 716 Box 20 127

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

7-22-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2

0032

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20940
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/22/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 2

0032

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/22/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 940

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — 7-20-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2
0033

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 716 Box 20-951
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/22/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 2

0033

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-22-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 716 Box 20-951

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Jim Fan — 7-22-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
	Limit																					
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
	Limit																					
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
	Limit																					
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Dey Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.186	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter		Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.065	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1600	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.036	994.8	37000	0.037	0.036	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.026	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter		Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2900	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.154	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter		Week of 7/11/2005																											
		7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	0	0.000	0.019	979.1	0	0.000	0.017	973.4	0	0.000	0.014	1020.5		0.000	0.002	964.2		0.000	0.000
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7		0.000	0.004	979.1		0.000	0.003	973.4		0.000	0.003	1020.5		0.000	0.000	964.2		0.000	0.000
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7		0.000	0.028	979.1		0.000	0.024	973.4		0.000	0.021	1020.5		0.000	0.003	964.2		0.000	0.000
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7		0.000	0.016	979.1		0.000	0.014	973.4		0.000	0.011	1020.5		0.000	0.002	964.2		0.000	0.000
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7		0.000	0.017	979.1		0.000	0.015	973.4		0.000	0.013	1020.5		0.000	0.002	964.2		0.000	0.000
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7		0.000	0.001	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7		0.000	0.001	979.1		0.000	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7		0.000	0.001	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 249 Page 1 of 2 DATE 25 Jul 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 75 °F, Max 88 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

A conference call was held to discuss the sand infiltration problem and possible responses. USACE requested that EQ provide a cost proposal to excavate the remaining material in the pipe jacking pit. EQ mixed dredge spoil, loaded roll off boxes and shipped 4 roll offs from area 1. A total of 37 roll off boxes have been shipped from the site.. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

William brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:

None

Verbal Instructions given by Government:

None.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 249

DATE 25 Jul 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0005 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EOM	SAFETY ENGINEER - ON SITE	1.0	10.0
EOM	SUPER - JOB	1.0	8.0
EOM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGEMT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	6.0	50.0

Total hours worked to date: 4,474.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
74167	Small Crane	8.0	0.0
6CR02136	Small Excavator	0.0	8.0
	Total	8.0	16.0

Total operating hours to date: 888.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 1347

Project No.	Project Name
030244	Tolman Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lehmann

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TEST: TPH
VOC 072305	7-23-05	24hr.	Surface Water	6 L	1	X
VOC 072405	7-24-05	24hr.	"	6 L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[signature]	7-25-05		[signature]	7-25-05	1005
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: STL - Pick up on site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 7-Day 8/2/05

Report To: Jackie Dunn

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-

Project No.	Project Name
030244	Indiana Water Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/Hg									
Semi-Vol 072305	7-23-05	24hr.	Filter	1,025.7 L	2	x	x									
Semi-Vol 072405	7-24-05	24hr.	Filter	1,024.9 L	2	x	x									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-25-05		[illegible]	7-25-05	1085
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/2/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN 030244
Date: 7/24/05
Page: 1 of 1

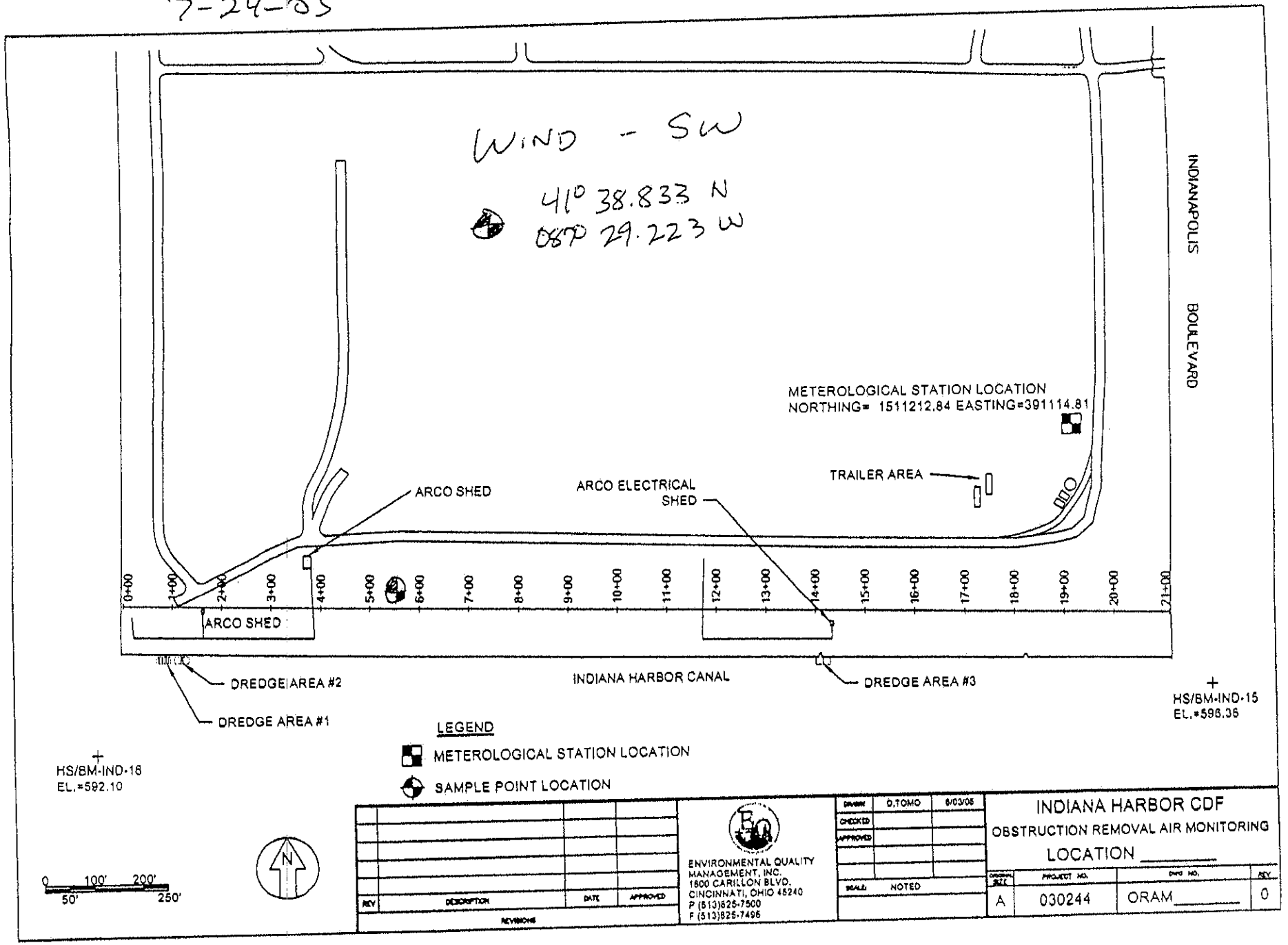
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min~~ hr	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOL 072405					06:30	07:00	24.5	6L
TO-13	SemiVOL 072405					06:30	07:00		1,024.9L
						:	07:00	24.5	
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: RT Sling Hemlib
Weather conditions: N.S.A ; Diesel Marine on site
Analytical lab: STL
COC Number: 13178, 13179

7-24-05


WIND - SW
41° 38.833 N
087° 29.223 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV DESCRIPTION DATE APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7496
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
ORIGINAL SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV. 0

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
			Sunrise at 5:37 AM				
6:50 AM	Haze **81°F**	**87°F**	75°F	84%	4.0 miles	29.96	From S 12mph
7:50 AM	Haze **82°F**	**91°F**	77°F	84%	4.0 miles	29.96 →	From SW 14mph
8:50 AM	Haze **84°F**	**94°F**	77°F	79%	5.0 miles	29.94 ↓	From SW 14mph
9:45 AM	Partly Cloudy **91°F**	**109°F**	81°F	71%	7.0 miles	29.94 →	From SW 14mph
10:45 AM	Partly Cloudy **91°F**	**104°F**	77°F	63%	10.0 miles	29.92 ↓	From SW 16mph
11:55 AM	Partly Cloudy **95°F**	**107°F**	75°F	53%	10.0 miles	29.92 →	From WSW 17mph
12:45 PM	Partly Cloudy **97°F**	**107°F**	73°F	47%	10.0 miles	29.89 ↓	From WSW 16mph
1:50 PM	Partly Cloudy **99°F**	**110°F**	73°F	44%	10.0 miles	29.88 ↓	From SW 17mph
2:45 PM	Sunny **82°F**	**88°F**	73°F	74%	10.0 miles	N/A	From WSW 17mph
5:55 PM	Sunny **99°F**	**110°F**	73°F	44%	10.0 miles	29.85	From SW 12mph
6:50 PM	Partly Cloudy **99°F**	**112°F**	75°F	47%	10.0 miles	29.85 →	From SW 12mph
7:45 PM	Partly Cloudy **95°F**	**107°F**	75°F	53%	10.0 miles	29.86 ↑	From SW 12mph

Today in East Chicago

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- Lawn & garden planting tips
- Scenic drive ideas
- Live local traffic reports

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Sunset at 8:15 PM

9:47 PM	Clear 91°F	109°F	81°F	71%	10.0 miles	29.89 ↑	From SW 12mph

Avg. 91° 29.9

Back to previous page

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- Walk Off Extra Pounds
- Get Expert Fitness Advice
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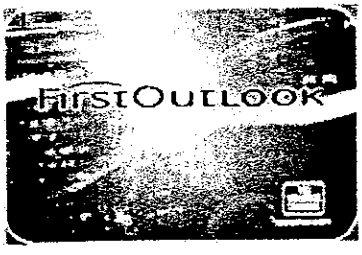

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

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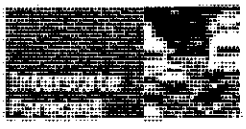
Tips to gro yard in hot weather.

Driving Weather



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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13170

ct No.	Project Name	
030244	Fairview Harbor Obstruction Removal	
lers/Affiliation: (Print Name and Sign)		Lab P.O. No: 9132
Ben Letmny		

le ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
L 072305	7-23-05	24hr.	Summa Canister	6L	1	X
L 072405	7-24-05	24hr.	"	6L	1	X

quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	7-25-05		M. Nikolenko	7-25-05	1005
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

rting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	7-Day 8/2/05	Jackie Dunn	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 15172

ct No.: 030241

Project Name: Indiana Harbor Obstruction Removal

lers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

ple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 7013/8270	TESTS: 7013/1668
i-Vol 072305	7-23-05	24hr.	Filter	1,023.7 L	2	x	x
i-Vol 072405	7-24-05	24hr.	Filter	1,024.9 L	2	x	x

quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	7-25-05		[illegible]	7-25-05	1085
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

rting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/2/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	Indiana Harbor
PN	030244
Date:	7/23/05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	~~Stc~~ 072305					06:30	06:25	24hr	6
TO-13	SUMVol 072305					06:30	06:25	24hr	1,078.7
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]

Calculations by: [illegible]

Checked by:

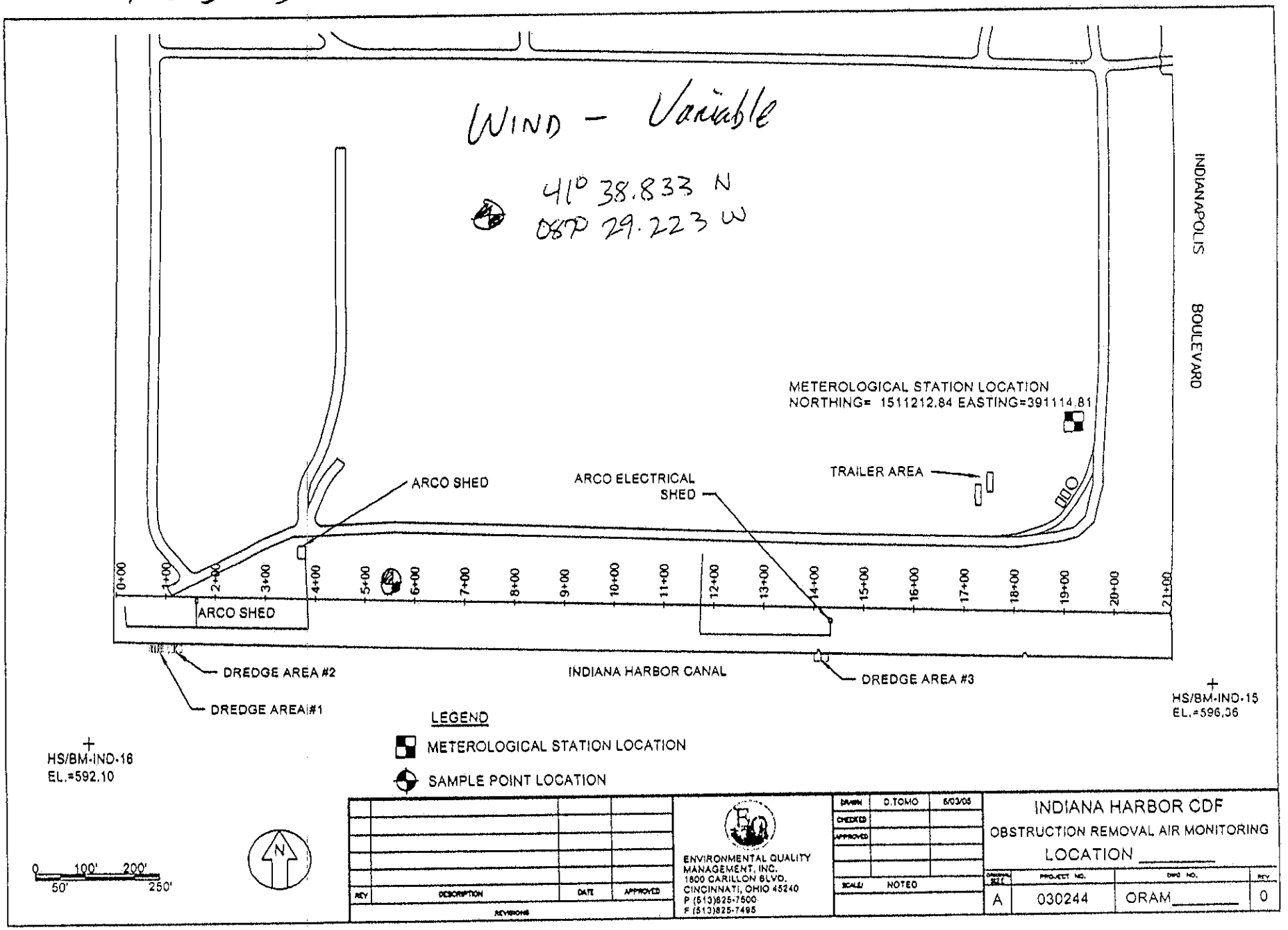
Activities performed on site: Mixing (solidify) soil

Weather conditions: Sunny, HOT, Variable wind

Analytical lab: STL

COC Number: 13178, 13179

7-23-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM _____	0

7-23-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 64°F	64°F	63°F	94%	10.0 miles	30.12	calm
Sunrise at 5:36 AM							
5:50 AM	Partly Cloudy 63°F	63°F	63°F	100%	Unlimited	30.13 ↑	calm
6:50 AM	Partly Cloudy 70°F	70°F	68°F	94%	Unlimited	30.13 →	calm
7:50 AM	Partly Cloudy 75°F	78°F	70°F	83%	Unlimited	30.13 →	calm
8:50 AM	Mostly Cloudy 81°F	82°F	64°F	58%	Unlimited	30.14 ↑	Variable 5mph
9:50 AM	Cloudy 79°F	83°F	73°F	83%	10.0 miles	30.16 ↑	Variable 5mph
10:45 AM	Mostly Cloudy 77°F	80°F	72°F	83%	Unlimited	30.14 ↓	Variable 5mph
12:45 PM	Mostly Cloudy 82°F	88°F	73°F	74%	10.0 miles	30.14 →	calm
1:45 PM	Cloudy 82°F	88°F	73°F	74%	10.0 miles	30.11 ↓	Variable 7mph
3:50 PM	Cloudy 84°F	91°F	73°F	70%	10.0 miles	30.03 ↓	Variable 7mph
5:50 PM	Cloudy 84°F	92°F	75°F	74%	10.0 miles	30.10 ↑	Variable 6mph
6:50 PM	Cloudy 82°F	90°F	75°F	79%	10.0 miles	30.08 ↓	From NE 9mph

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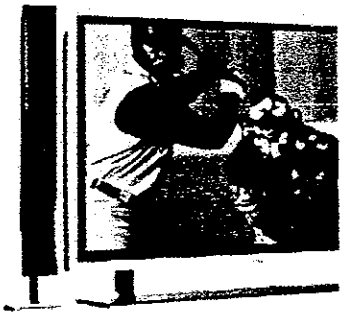

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7:45 PM	Mostly Cloudy 82°F	90°F	75°F	79%	10.0 miles	30.04 ↓	From SE 12mph
	Sunset at 8:16 PM						
8:50 PM	Partly Cloudy 81°F	87°F	75°F	84%	10.0 miles	30.02 ↓	From SSE 12mph
9:49 PM	Clear 81°F	87°F	75°F	84%	10.0 miles	30.02 →	From SSE 9mph

Avg. 78° 30.10

Back to previous page

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of																					
		6/27/2005		6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.760
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.952
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.138	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter		Week of																					
		7/4/2005		7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	760	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter		Week of																					
		7/11/2005		7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	984.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	984.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	984.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	984.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	984.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	984.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	984.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	984.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/27/2005

Parameter	Limit	6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.067	961.1	22000	0.023	0.063	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.056	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8600	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	6000	0.006	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.026	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	67000	0.063	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Week of 7/11/2005

Parameter	Limit	7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	0	0.000	0.019	979.1	0	0.000	0.017	973.4	0	0.000	0.014	1020.5		0.000	0.002	964.2		0.000	0.000
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7		0.000	0.004	979.1		0.000	0.003	973.4		0.000	0.003	1020.5		0.000	0.000	964.2		0.000	0.000
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7		0.000	0.028	979.1		0.000	0.024	973.4		0.000	0.021	1020.5		0.000	0.003	964.2		0.000	0.000
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7		0.000	0.016	979.1		0.000	0.014	973.4		0.000	0.011	1020.5		0.000	0.002	964.2		0.000	0.000
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7		0.000	0.017	979.1		0.000	0.015	973.4		0.000	0.013	1020.5		0.000	0.002	964.2		0.000	0.000
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7		0.000	0.001	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7		0.000	0.001	979.1		0.000	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7		0.000	0.001	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7		0.000	0.000	979.1		0.000	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

0034

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20941
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/25/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0034

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7/25/5 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 941

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — Name of Authorized Agent

Signature

7-25-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

0035

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20 131
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rudzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/25/15

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0035

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/25/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20131

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — 7-25-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Area 1

0036

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20 130
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/25/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0036

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/25/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 88 Box 20 130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

7-25-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1
0037

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-112
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	
HAULER MAILING ADDRESS: 2320 W. 167th Street	GENERATOR AUTHORIZED SIGNATURE: [signature]
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rudzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/25/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA #1
0037

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 721 / Box # 20-112
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBron 7-25-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:35:08 25-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.253 mg/m³
Time at maximum: 09:35:12 Jul 25
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 09:35:38 Jul 25
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Jul	09:40:08	0.01

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:33:44 25-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.249 mg/m³
Time at maximum: 11:33:52 Jul 25
Max STEL Concentration: 0.007 mg/m³
Time at max STEL: 11:38:44 Jul 25
Overall Avg Conc: 0.025 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Jul	11:38:44	0.037

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:09:55 25-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.077 mg/m³
Time at maximum: 13:11:12 Jul 25
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:09:55 Jul 25
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Jul	13:14:55	0.003

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:22:26 25-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.148 mg/m³
Time at maximum: 15:23:28 Jul 25
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 15:24:26 Jul 25
Overall Avg Conc: 0.005 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Jul	15:27:26	0.014

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- [illegible]

ect No.: 730244
Project Name: Indiana Harbor Obstruction Removal
plers/Affiliation: (Print Name and Sign) [illegible] 12Om
Lab P.O. No: 9132

ple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
5C072505	7-25-05	24 hr	Summa Canister	6L	1	X

nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-26-05		[signature]	7-26-05	0915
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

orting/QA Requirements:

Turn Around Time (**EXACT DUE DATE**): 7-Day 8/3/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131-1

ect No.: 030244

Project Name: Indiana Harbor Obstruction Removal

nplers/Affiliation: (Print Name and Sign): Jim Letany / EDM

Lab P.O. No: 9132

nple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 7013/8270	TESTS: 7013/1668
Imi-Vol 072505	7-25-05	2400	Filter	1,031.9L	2	X	X

nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Jim Letany	7-25-05		Mike Infelbert	7.26.05	0915
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

orting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 8/13/05

Report To: Jackie Dunn

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site:	Indiana Harbor
PN	030244
Date:	7 / 25 / 05
Page:	1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 072505					07:00	07:00	24hr.	6L
TO-13	Semivol 072505					07:00	07:00	24hr.	1031.9L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]

Calculations by: [illegible]

Checked by:

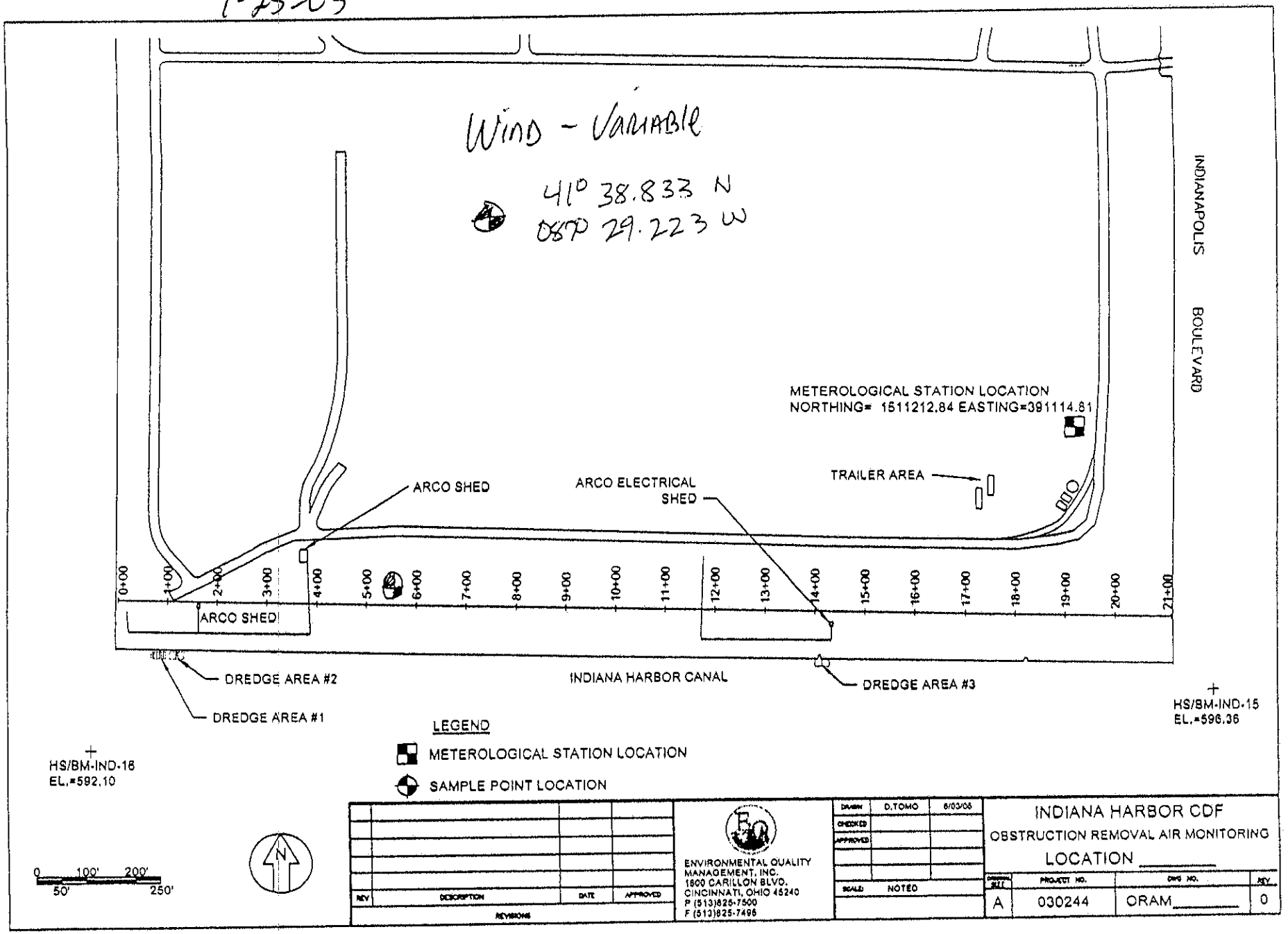
Activities performed on site: LOAD OUT sediment

Weather conditions: T-STORMS, HOT, HUMID, VARIABLE WIND

Analytical lab: SAL

COC Number: EQ 13180, 13181

7-25-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SHEET	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM _____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030264

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-25-05 0815	PDR	[illegible]	Zero Calibration	"Cal OK"	Overcast, T-storms, Hot Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-25-05

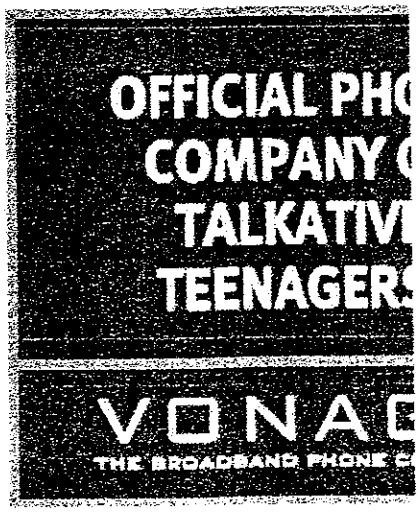
Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy 79°F	84°F	75°F	89%	10.0 miles	29.93	calm
Sunrise at 5:38 AM							
5:50 AM	Partly Cloudy 79°F	84°F	75°F	89%	10.0 miles	29.93 →	calm
6:55 AM	Partly Cloudy 82°F	91°F	77°F	84%	10.0 miles	29.93 →	From NNE 8mph
7:46 AM	Light Rain with Thunder 82°F	91°F	77°F	84%	7.0 miles	29.97 ↑	From E 29mph
8:49 AM	Mostly Cloudy 75°F	79°F	73°F	94%	N/A	29.97 →	Variable 7mph
9:46 AM	Cloudy 79°F	83°F	73°F	83%	10.0 miles	29.97 →	From WSW 12mph
10:50 AM	Cloudy 79°F	84°F	75°F	89%	10.0 miles	29.94 ↓	calm
11:48 AM	Light Rain 79°F	84°F	75°F	89%	7.0 miles	29.94 →	calm
12:50 PM	Light Rain 81°F	89°F	79°F	94%	7.0 miles	29.97 ↑	From SW 9mph
1:47 PM	Light Rain 81°F	87°F	75°F	84%	7.0 miles	29.92 ↓	From SSE 12mph
2:50 PM	Mostly Cloudy 82°F	91°F	77°F	84%	10.0 miles	29.89 ↓	From SSE 12mph



Today in East Chicago

- Summer Picnic Planner
- Allergy outlook & pollen counts
- Lawn & garden planting tips
- Scenic drive ideas
- Live local traffic reports

Sign Up Today to Get l
local weather always on yo
start
Click Here for Free & Easy

Special Offers in East Chic
South America Gay Travel
Customized Tours & Competitive Cos

3:50 PM	Mostly Cloudy 88°F	97°F	75°F	66%	Unlimited	29.88 ↓	From SSE 9mph
4:50 PM	Mostly Cloudy 88°F	99°F	77°F	70%	Unlimited	29.86 ↓	Variable 5mph
5:50 PM	Mostly Cloudy 88°F	99°F	77°F	70%	Unlimited	29.84 ↓	Variable 5mph
6:50 PM	Mostly Cloudy 88°F	101°F	79°F	75%	Unlimited	29.82 ↓	From SE 8mph
7:50 PM	Mostly Cloudy 86°F	96°F	77°F	74%	10.0 miles	29.81 ↓	From SE 8mph
Sunset at 8:14 PM							
8:50 PM	Mostly Cloudy 84°F	95°F	79°F	84%	10.0 miles	29.79 ↓	From SSE 9mph
9:50 PM	Mostly Cloudy 84°F	95°F	79°F	84%	10.0 miles	29.78 ↓	From SSE 9mph

Avg. 87° 29.89

Back to previous page

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- Golf Schedules & Forecasts
- U.S. Weather Maps

What's on The Weather Channel

Find TWC on your TV

On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

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Bella-Pictures.com

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Fight Spyware:Netscape 8.0 Security choices Free Download

Free Sa
Coupor

This Week's Features

Summer Lawn Care

Tips to gro yard in hot weather.

Driving Weather

Check curr conditions

Summer Adventure

Find perfec your sumn

Desktop Weather

FREE weat on your de

Health

Weather a

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
250

DATE
26 Jul 2005 - Tuesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 70 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher performed no work due to the sand infiltration problem. iEQ loaded roll off boxes and shipped 7 roll offs from area 1 and 2. A total of 44 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 250 Page 2 of 2 DATE 26 Jul 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,516.0	Total	5.0	42.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
74167	Small Crane		8.0	0.0
6CRC02136	Small Excavator		0.0	8.0
Total operating hours to date: 896.0		Total	16.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	7/27/05		

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:26:28 26-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.070 mg/m³
Time at maximum: 09:26:50 Jul 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:26:28 Jul 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Jul	09:31:28	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:31:17 26-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:31:17 Jul 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:31:17 Jul 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Jul	11:36:17	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:32:34 26-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:32:34 Jul 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:32:34 Jul 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	26-Jul	13:37:34	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:09:08 26-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.158 mg/m³
Time at maximum: 15:09:12 Jul 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:09:08 Jul 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Jul	15:14:08	0.007

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13103

ect No.	Project Name	
030244	Indiana Harbor Obstruction Removal	
plers/Affiliation: (Print Name and Sign)		Lab P.O. No:
Ben Lefang / EQM		9132

ple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13 8270	TESTS: TO-13 1668
chni-Vol 072605	7-26-05	1205	Filter	967.7L	2	X	X

nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	7-27-05	935		7-27	935
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
nquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number

orting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	7-DAY 8-4-05	Jackie Doan	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13152

t No.	Project Name																		
030244	Indiana Harbor Obstruction Removal																		
lers/Affiliation: *(Print Name and Sign)*					Lab P.O. No:														
[illegible] / EQM					9132														
le ID:	Date	Time	Description/Matrix:		Sample Volume / Comments	No. of Containers	TO-15												
072605	7-26-05	24hr	Summa Canister		6L	1	X												

uished by: *(Signature)* [illegible]	Date 7-27-05	Time 9:35	Received by: *(Signature)* [illegible]	Date 7-27	Time 9:35	Ship To: STL - pick up on site
uished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	
uished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Airbill Number
ting/QA Requirements:	Turn Around Time (**EXACT DUE DATE**): 7-DAY 8/4/05		Report To: Jackie Donn			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN 030244
Date: 7/26/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	VOC072605					07:00	07:00	24	6L
TO-13	SemiVol072605					07:00	07:00	24	167.7L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Sliding + tow out dredge material
Weather conditions: DIRECT, HOT, HUMID, APPROACHING STORM CLOUDS
Analytical lab: STL
COC Number: 00 13152, 13193

)

SAMPLING EQUIPMENT CALIBRATION LOG

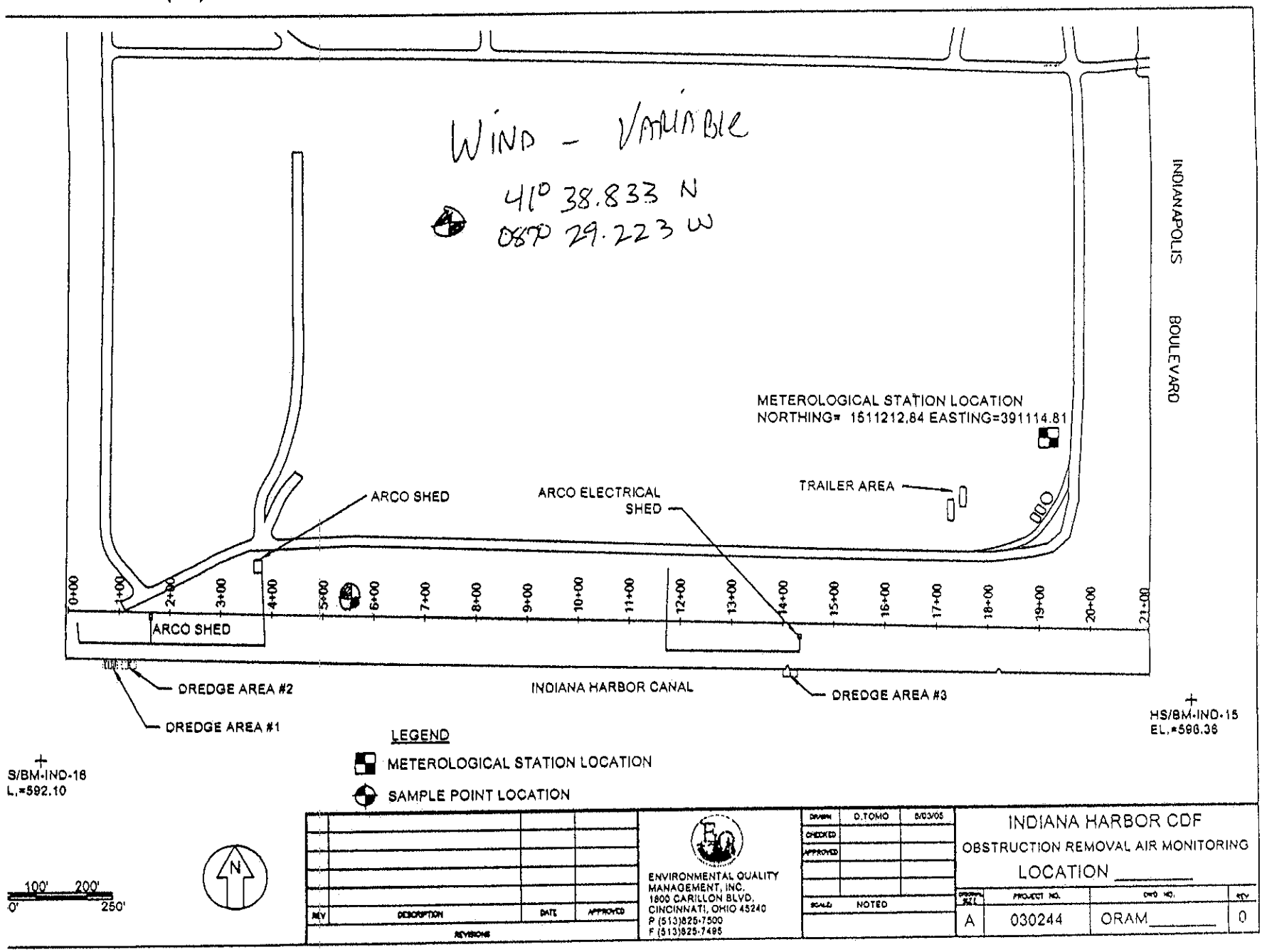
Name: Indiana Harbor Obstruction Removal

Project No.: 0302-44

TE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
-26-05 1843	PDR	Ben Letany	Zero Calibration	Cal OK	Overcast, Hot, Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-26-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	CHO NO.	REV
A	030244	ORAM	0

7-26-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

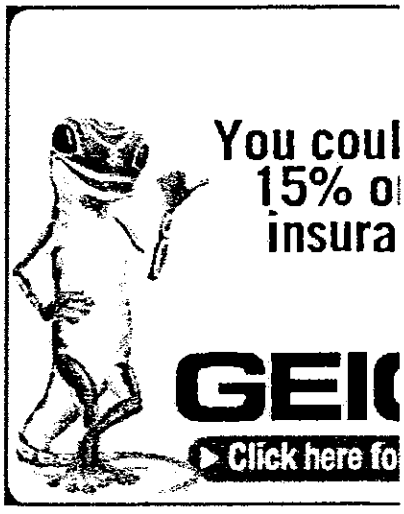
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Clear 82°F	91°F	77°F	84%	10.0 miles	29.76	From SW 9mph
Sunrise at 5:39 AM							
5:50 AM	Mostly Cloudy 81°F	88°F	77°F	89%	7.0 miles	29.76 →	From SSW 7mph
6:50 AM	Mostly Cloudy 81°F	88°F	77°F	89%	7.0 miles	29.76 →	From SW 12mph
7:45 AM	Cloudy 81°F	88°F	77°F	89%	7.0 miles	29.77 ↑	From WSW 12mph
8:50 AM	Cloudy 82°F	88°F	73°F	74%	10.0 miles	29.79 ↑	From W 12mph
9:50 AM	Mostly Cloudy 84°F	91°F	73°F	70%	Unlimited	29.78 ↓	From WSW 14mph
11:50 AM	Mostly Cloudy 91°F	102°F	75°F	59%	Unlimited	29.79 →	From W 16mph
1:50 PM	Cloudy 91°F	102°F	75°F	59%	Unlimited	29.79 →	From W 9mph
2:50 PM	Cloudy 91°F	100°F	73°F	55%	Unlimited	29.78 ↓	From W 16mph
3:20 PM	Cloudy 79°F	83°F	72°F	78%	10.0 miles	29.80 ↑	From N 14mph
3:50 PM	Cloudy 75°F	78°F	70°F	83%	10.0 miles	29.91 ↑	From N 14mph
4:15 PM	Light Rain 73°F	73°F	70°F	88%	6.0 miles	29.81 ↓	From N 14mph



Today in East Chicago

- Exercise tips to beat the heat
- Allergy outlook & pollen counts
- Hot weather lawn & garden car
- Weekend grilling & cookout for
- Live local traffic reports

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local weather always on yo
start
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South America Gay Travel
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4:50 PM	Cloudy 73°F	73°F	70°F	88%	7.0 miles	29.81 →	From NNE 12mph
5:50 PM	Light Rain 73°F	73°F	70°F	88%	10.0 miles	29.80 ↓	From NNE 14mph
6:30 PM	Light Rain with Thunder 70°F	70°F	68°F	94%	1.5 miles	29.85 ↑	From N 12mph
6:50 PM	Light Rain with Thunder 70°F	70°F	68°F	94%	2.5 miles	29.83 ↓	From NNE 12mph
7:50 PM	Light Rain 70°F	70°F	68°F	94%	4.0 miles	29.82 ↓	From NNE 12mph
Sunset at 8:13 PM							
8:50 PM	Light Rain 70°F	70°F	68°F	94%	4.0 miles	29.82 →	From NNE 12mph
9:50 PM	Light Rain 70°F	70°F	68°F	94%	Unlimited	29.84 ↑	From N 12mph

Avg. 78° 29.80

Back to previous page

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Weather and Your Allergies

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For East Chicago, IN (46312)
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- Allergy Control Tips
- Find Pollen Hotspots
- Compare U.S. Pollen Levels

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Find TWC on your TV

On-Air Schedule (ET)

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www.southamericagaytravel.com

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Compare. Save.
www.priceline.com

Fly America West Airlines
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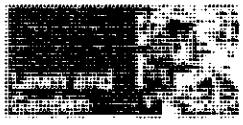
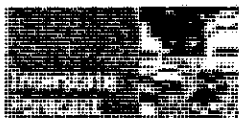
This Week's Features

Summer Lawn Care



Tips to gro
yard in hot
weather.

Driving Weather



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conditions

Summer Adventure

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your sumn

Desktop Weather

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on your de

Health

Weather a

Area 1
0038

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20 952
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/26/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0038

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/25/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 88 Box 20952

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Maxwell — 7-26-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No.: 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

UNIFORM SOLID WASTE RECORD

0039

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20 130
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/21/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA #1

0039

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE [signature] 7/26/5

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun [signature] 7-26-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 2
0040

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 713 Box 20-942
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/26/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 2

0040

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE [signature] 7/26/5

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 713 Box 20-942

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above to the best of my knowledge.

1st choice [signature] 7-26-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1

0041

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20127
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	
HAULER MAILING ADDRESS: 2320 W. 167th Street	GENERATOR AUTHORIZED SIGNATURE: [signature]
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rukizitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/26/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0041

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE [signature] 7/26/5

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 88 Box 20 127

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MATWELL [signature] 7-26-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1
0042

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20 131
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur R. Nazitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/26/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

0042

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/26/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 131

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LeBrun — 7-26-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Area 2
0043

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 713 Box 20 959
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/26/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME: Michael J. Hughes

EQP 5224 (10/04)

AREA # 2

0042

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE [signature] 7/26/5

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 713 Box 20959

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1
0044

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 89 Box 20-940
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rubdzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/26/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

AREA # 1

0044

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/26/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 88 20-940

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MAXWELL — 7-26-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of																					
		6/27/2005		6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng/ Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.256	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.376	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter		Week of																					
		7/4/2005		7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	ng/ Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter		Week of																					
		7/11/2005		7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	ng/ Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Dey Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/27/2005																							
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.006	984.2	5600	0.006	0.007	1048.0	8600	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	6300	0.006	0.022	984.2	16000	0.016	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.036	961.1	21000	0.022	0.037	983.2	7600	0.009	0.026	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.006	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																							
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		#####	0.027	No Sample		#####	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		#####	0.006	No Sample		#####	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		#####	0.034	No Sample		#####	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		#####	0.022	No Sample		#####	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	67000	0.063	0.030	1000.5	10000	0.010	0.026	No Sample		#####	0.026	No Sample		#####	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		#####	0.001	No Sample		#####	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2900	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		#####	0.002	No Sample		#####	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		#####	0.001	No Sample		#####	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		#####	0.000	No Sample		#####	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter	Limit	Week of 7/11/2005																							
		7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		#####	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15		No Sample		#VALUE!	0.006	No Sample		#####	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18		No Sample		#VALUE!	0.034	No Sample		#####	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28		No Sample		#VALUE!	0.022	No Sample		#####	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31		No Sample		#VALUE!	0.026	No Sample		#####	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.006	964.2		0.000	0.003
PCB77		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		#####	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		#####	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		#####	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		#####	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 251

DATE 27 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0005 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 66 °F, Max 73 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher performed no work due to the sand infiltration problem. EQ loaded roll off boxes and shipped 6 off site. A total of 50 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 251

DATE 27 Jul 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	10.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,558.0	Total	5.0	42.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
74167	Small Crane		8.0	0.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 904.0		Total	16.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE | SUPERINTENDENTS INITIALS

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:21:32 27-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:21:32 Jul 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:21:32 Jul 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jul	09:26:32	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 4
Start time and date: 11:31:14 27-Jul
Elapsed time: 00:20:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:31:14 Jul 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:31:14 Jul 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jul	11:36:14	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 2
Start time and date: 13:42:48 27-Jul
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:42:48 Jul 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:42:48 Jul 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jul	13:47:48	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:09:48 27-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.221 mg/m³
Time at maximum: 15:13:23 Jul 27
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:09:48 Jul 27
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	27-Jul	15:14:48	0.013

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131 5

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lehany / EQM

Lab P.O. No.: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Air-Vol 072705	7-27-05	24hr.	Filter	1,038.5 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Lehany	7-28-05	8:30	[illegible]	7-28	8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL- Pick up on site

Airbill Number:

Shipping/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/5/05

Report To: Jackie DOAN

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131 54

Project No.	Project Name	
0302414	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign)	/ EQM	Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
TOC 070705	7-27-05	24	Sump Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
	7-28-05			7-28	1630	STL - Pick up on site
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

Reporting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 8/5/05	Report To: Jackie Doan	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN 0302441
Date: 7/27/05
Page: 1 of 1

SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC072705					07:00	07:00	24	6L
TO-13	SVOC072705					07:00	07:00	24	1,038.5L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: LOAD OUT SEDIMENT
Weather conditions: PARTLY CLOUDY, COOL, NORTH WIND
Analytical lab: STL
COC Number: EQ 13184, 13185

SAMPLING EQUIPMENT CALIBRATION LOG

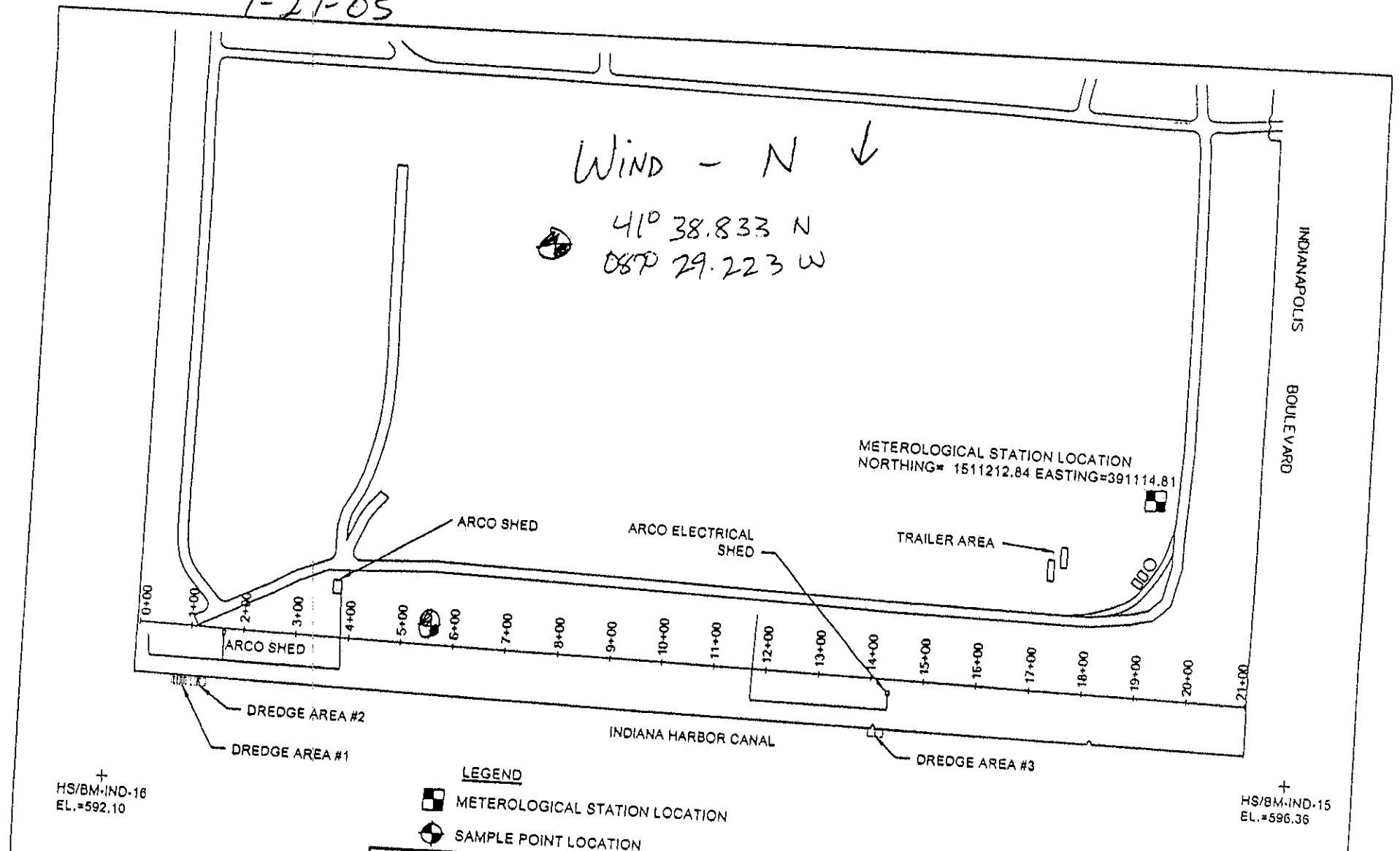
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-27-05 0807	PDR	Ben Letany	zero Calibration	"Cal OK"	Partly Cloudy, Cooler, North Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-27-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING LOCATION

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM	0

7-27-05

Enter city or US zip See weather related to ... GO

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:49 AM	Cloudy 70°F	70°F	61°F	73%	Unlimited	29.96	From NNE 12mph
Sunrise at 5:40 AM							
5:45 AM	Cloudy 68°F	68°F	57°F	68%	Unlimited	29.97 ↑	From NNE 12mph
6:50 AM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	29.98 ↑	From NNE 12mph
7:50 AM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30.01 ↑	From NNE 14mph
8:45 AM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.02 ↑	From NNE 14mph
9:50 AM	Cloudy 70°F	70°F	61°F	73%	Unlimited	30.04 ↑	From N 9mph
10:50 AM	Cloudy 72°F	72°F	59°F	64%	Unlimited	30.06 ↑	From N 9mph
11:50 AM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.07 ↑	From N 12mph
12:50 PM	N/A 73°F	73°F	59°F	61%	Unlimited	30.08 ↑	From N 12mph
1:51 PM	Partly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.08 →	From N 12mph
2:50 PM	Partly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.08 →	From N 12mph
4:55 PM	Partly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.08 →	From N 14mph

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cold and clammy
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The Bel Stratford

5:50 PM	Partly Cloudy 72°F	72°F	54°F	53%	Unlimited	30 08	From NNE 12mph
6:50 PM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30 08	From NNE 9mph
7:50 PM	Sunny 70°F	70°F	57°F	64%	Unlimited	30 08	From NNE 7mph
Sunset at 8:12 PM							
8:50 PM	Clear 66°F	66°F	55°F	68%	Unlimited	30 08	From N 9mph
9:50 PM	Clear 68°F	68°F	55°F	64%	Unlimited	30 08	From N 7mph

Avg. 70° 30.04

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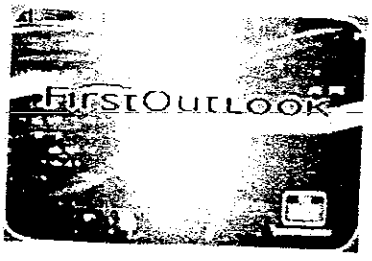

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9 AM	Day Planner
12 PM	Weather Center

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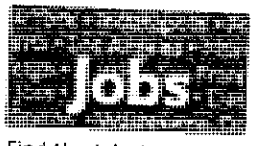
Feature Finds



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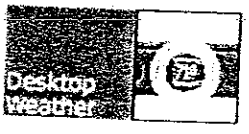

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Area 1

0045

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 89 Box 20 112
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/27/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA 1

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0045

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE

Generator/Authorized Agent Name

Signature

7/27/5

Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 88 Box 20 112

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

M Rowell

Name of Authorized Agent

Signature

7-27-05

Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Area 1
0046

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20 941
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/27/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

Area 1

0046

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name

Signature

7/27/5 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 941

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rickie Brown — Name of Authorized Agent

Signature

7-27-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Area 1
0047

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20 986
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rubizitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/27/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

AREA "

Area 1
0047

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/27/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 Box 20 986
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MARWEN — 7-27-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

004B
Area 1

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: East Chicago Waterway Mgmt.

GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.

HAULER MAILING ADDRESS: 2320 W. 167th STREET

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 box 20-952

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE):

1 TON = 2,000 LBS. 20 yd.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Rubizitis On Behalf of USACE

DATE:

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

mcn 1

0048

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE

Generator/Authorized Agent Name

Signature

Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 bx 20-952

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent

Signature

Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Area 1

0049

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: East Chicago Waterway Mgmt.

GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.

HAULER MAILING ADDRESS: 2320 W. 167th STREET

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20113

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE):

1 TON = 2,000 LBS. 20 YD.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Ruidzitis On Behalf of USACE

DATE: 7/27/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

Area 1
0049

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312
Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE
Generator/Authorized Agent Name

Signature

7/27/5
Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 Box 20 113
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent

Signature

7-27-05
Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128
Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Area 1
0050

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: East Chicago Waterway Mgmt.

GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.

HAULER MAILING ADDRESS: 2320 W. 167th STREET

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20.940

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE):

1 TON = 2,000 LBS. 20 YD.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Rudzaitis On Behalf of USACE

DATE: 7/27/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

Area 1
0050

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312
Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE
Generator/Authorized Agent Name

Signature

7/27/5
Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 721 Box 20-940
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick Holbrun
Name of Authorized Agent

Signature

7-27-05
Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128
Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter	Limit	Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter	Limit	Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter	Limit	Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.216	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.681	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	8000	8.333	8.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flouranthene	1250.0	961.3	16000	994.8	12000	12.063	13.962	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Flourene	1250.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	31000	31.182	33.032	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Napthalene	30.0	961.3	39000	994.8	31000	31.182	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Phenanthrene	9376.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057
Pyrene	938.0																						

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1600	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	8.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	3.335	973.4		0.000	0.360	1020.5		0.000	0.050	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	4.211	979.1		0.000	0.096	973.4		0.000	2.199	1020.5		0.000	1.259	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	0.196	979.1		0.000	9.636	973.4		0.000	5.164	1020.5		0.000	0.320	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	0.803	1020.5		0.000	0.000	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	0.953	1020.5		0.000	0.000	964.2		0.000	0.000
				990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	6/27/2005 pg Raw Data	6/27/2005 ppb Calc. Data	6/27/2005 5-Day Average	6/28/2005 Sample Volume (liters)	6/28/2005 pg Raw Data	6/28/2005 ppb Calc. Data	6/28/2005 5-Day Average	6/29/2005 Sample Volume (liters)	6/29/2005 pg Raw Data	6/29/2005 ppb Calc. Data	6/29/2005 5-Day Average
PCB 8		961.3	36000	0.036	0.016	952.3	38000	0.039	0.021	994.8	82000	0.082	0.057
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB26		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.003			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	6/30/2005 pg Raw Data	6/30/2005 ppb Calc. Data	6/30/2005 5-Day Average	7/1/2005 Sample Volume (liters)	7/1/2005 pg Raw Data	7/1/2005 ppb Calc. Data	7/1/2005 5-Day Average	7/2/2005 Sample Volume (liters)	7/2/2005 pg Raw Data	7/2/2005 ppb Calc. Data	7/2/2005 5-Day Average	7/3/2005 Sample Volume (liters)	7/3/2005 pg Raw Data	7/3/2005 ppb Calc. Data	7/3/2005 5-Day Average
PCB 8	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.006	0.010	983.2	1600	0.002	0.009	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.016
PCB26	961.1	21000	0.022	0.037	983.2	7600	0.008	0.026	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.001	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	7/4/2005 pg Raw Data	7/4/2005 ppb Calc. Data	7/4/2005 5-Day Average	7/5/2005 Sample Volume (liters)	7/5/2005 pg Raw Data	7/5/2005 ppb Calc. Data	7/5/2005 5-Day Average	7/6/2005 Sample Volume (liters)	7/6/2005 pg Raw Data	7/6/2005 ppb Calc. Data	7/6/2005 5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023
PCB26		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
Total	1000.0			0.154	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	7/7/2005 pg Raw Data	7/7/2005 ppb Calc. Data	7/7/2005 5-Day Average	7/8/2005 Sample Volume (liters)	7/8/2005 pg Raw Data	7/8/2005 ppb Calc. Data	7/8/2005 5-Day Average	7/9/2005 Sample Volume (liters)	7/9/2005 pg Raw Data	7/9/2005 ppb Calc. Data	7/9/2005 5-Day Average	7/10/2005 Sample Volume (liters)	7/10/2005 pg Raw Data	7/10/2005 ppb Calc. Data	7/10/2005 5-Day Average
PCB 8	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18	1075.7	37000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB26	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118	1075.7	2900	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.000	No Sample		######	0.001	No Sample		######	0.001
PCB189	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	7/11/2005 pg Raw Data	7/11/2005 ppb Calc. Data	7/11/2005 5-Day Average	7/12/2005 Sample Volume (liters)	7/12/2005 pg Raw Data	7/12/2005 ppb Calc. Data	7/12/2005 5-Day Average	7/13/2005 Sample Volume (liters)	7/13/2005 pg Raw Data	7/13/2005 ppb Calc. Data	7/13/2005 5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB26		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB180		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	7/14/2005 pg Raw Data	7/14/2005 ppb Calc. Data	7/14/2005 5-Day Average	7/15/2005 Sample Volume (liters)	7/15/2005 pg Raw Data	7/15/2005 ppb Calc. Data	7/15/2005 5-Day Average	7/16/2005 Sample Volume (liters)	7/16/2005 pg Raw Data	7/16/2005 ppb Calc. Data	7/16/2005 5-Day Average	7/17/2005 Sample Volume (liters)	7/17/2005 pg Raw Data	7/17/2005 ppb Calc. Data	7/17/2005 5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18	979.1	5900	0.006	0.028	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB26	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31	979.1	4700	0.005	0.016	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81	979.1	ND	0.001	0.000	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105	979.1	ND	0.001	0.001	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 252 Page 1 of 2 DATE 28 Jul 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 55 °F, Max 79 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

Thatcher performed no work due to the sand infiltration problem. EQ loaded roll off boxes and shipped 5 off site. A total of 55 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:

None

Verbal Instructions given by Government:

Ed Wise and Arthur Rundzaitis discussed air sampling. Agreement was reached that air sampling would not need to be performed once the canal sediment was shipped off site. The remaining water filtrate was not believed to be a significant air contaminant source and its presence would not merit air monitoring.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 252

DATE 28 Jul 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
ECM	SAFETY ENGINEER - ON SITE		1.0	10.0
ECM	SUPER - JOB		1.0	8.0
ECM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,600.0	Total	5.0	42.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
74167	Small Crane		8.0	0.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 912.0		Total	16.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:20:12 28-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.024 mg/m³
Time at maximum: 09:20:41 Jul 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:20:12 Jul 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jul	09:25:12	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:31:58 28-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.034 mg/m³
Time at maximum: 11:32:44 Jul 28
Max STEL Concentration: 0.003 mg/m³
Time at max STEL: 11:36:58 Jul 28
Overall Avg Conc: 0.008 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jul	11:36:58	0.01

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:11:58 28-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.019 mg/m³
Time at maximum: 13:17:24 Jul 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:11:58 Jul 28
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jul	13:16:58	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:31:53 28-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.071 mg/m³
Time at maximum: 15:32:03 Jul 28
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:31:53 Jul 28
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28-Jul	15:36:53	0.003

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13126

Project No.	Project Name	
030214	Indiana Harbor Obstruction Removal	

Samplers/Affiliation: (Print Name and Sign) Ben Gotany Bagetty / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
VOC 072805	7-28-05	24hr.	Summa Canister	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Gotany	7-29-05	1005	M M Roberts	7-29-05	1005
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 10 wks 8/8/05

Report To: Jackie Doan

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131 7

ject No.	Project Name																			
030244	Indiana Harbor Obstruction Removal																			
nplers/Affiliation: (Print Name and Sign)				Lab P.O. No:																
[illegible] [illegible] / EQM				9132																
nple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13 (8270)	TO-13 (1668)													
mi-Vol 072905	7-28-05	5 24h	filter	989.3L	2	X	X													

quished by: (Signature) [illegible]	Date 7/29/05	Time 1005	Received by: (Signature) [illegible]	Date 7-29-05	Time 1005	Ship To: STL - Pick up on Site
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number
rting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-Day 8/8/05		Report To: Jackie Doan			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

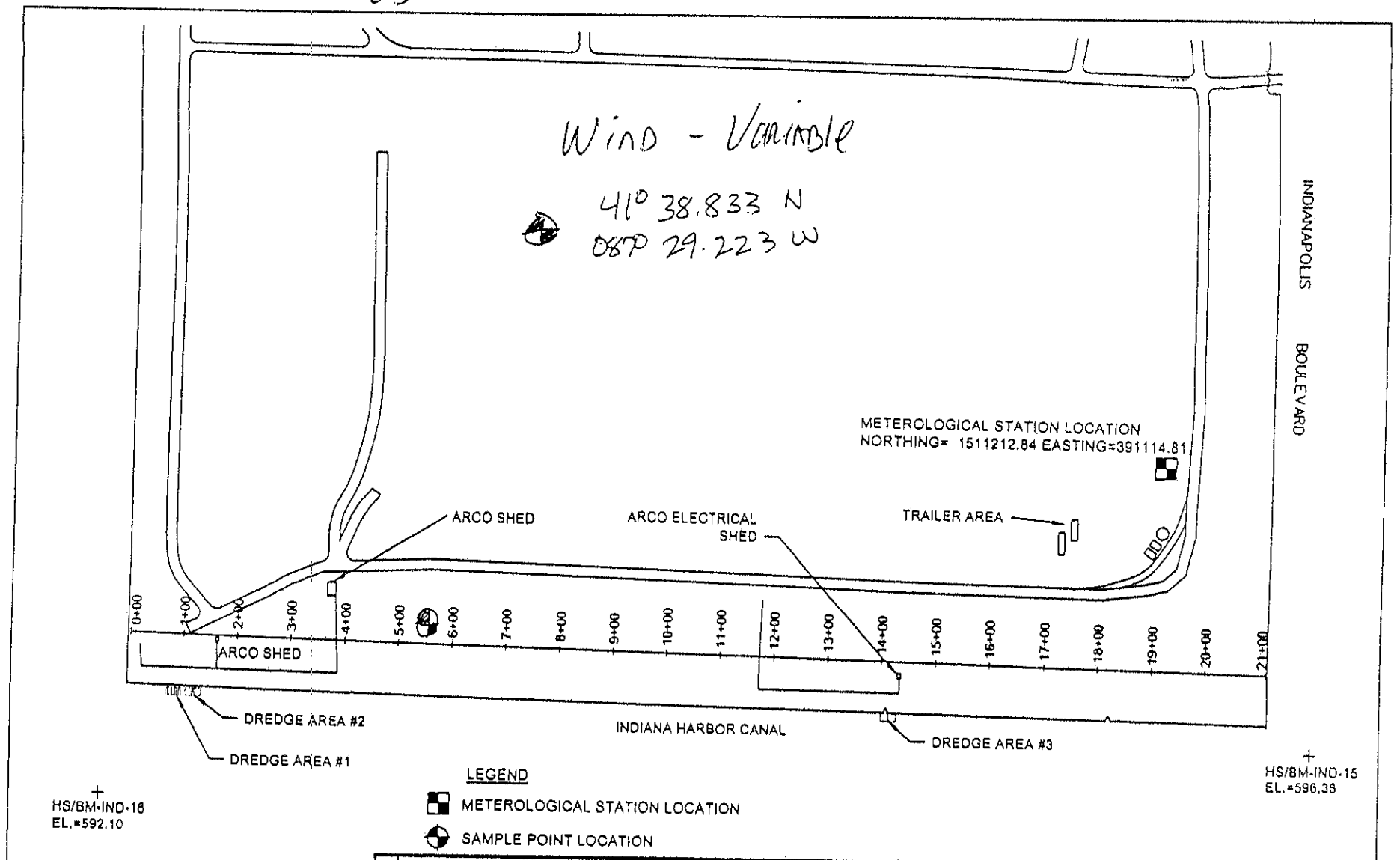
Site: Indiana Harbor
PN: 030244
Date: 7/28/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	Vol 072805					07:00	07:00	24	6
TO-13	Semi Vol 072805					07:00	07:00	24	989.3L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: Wind out sediment
Weather conditions: Sunny, Warm, Variable wind
Analytical lab: STL
COC Number: 13186, 13187

7-28-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-28-05 0916	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Warm, Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Welcome. Customize weather.com

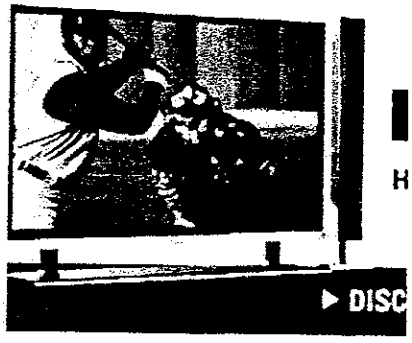
7-28-05

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:50 AM	Partly Cloudy 55°F	55°F	54°F	94%	Unlimited	30.09	calm
Sunrise at 5:41 AM							
5:50 AM	Partly Cloudy 55°F	55°F	54°F	94%	Unlimited	30.09 →	calm
6:50 AM	Partly Cloudy 61°F	61°F	59°F	94%	Unlimited	30.11 ↑	Variable 6mph
7:50 AM	Partly Cloudy 68°F	68°F	59°F	73%	Unlimited	30.12 ↑	From WNW 6mph
8:50 AM	Partly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.13 ↑	From WNW 9mph
9:50 AM	Partly Cloudy 75°F	75°F	54°F	47%	Unlimited	30.13 →	Variable 7mph
10:50 AM	Partly Cloudy 75°F	75°F	52°F	44%	Unlimited	30.13 →	From NNE 8mph
11:50 AM	Partly Cloudy 75°F	75°F	52°F	44%	Unlimited	30.12 ↓	From NNE 8mph
12:50 PM	Partly Cloudy 77°F	76°F	52°F	41%	Unlimited	30.12 →	From NNE 12mph
1:50 PM	Partly Cloudy 77°F	77°F	54°F	44%	Unlimited	30.12 →	From NNE 12mph
2:50 PM	Partly Cloudy 79°F	78°F	55°F	44%	Unlimited	30.10 ↓	From NNE 12mph
	Partly						

TV'S COME A LONG
DELL'S TAKING IT FA



Today in East Chicago

- Exercise tips to beat the heat
- Allergy outlook & pollen counts
- Hot weather lawn & garden car
- Weekend grilling & cookout for
- Live local traffic reports

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Start

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Special Offers in East Chica

Belden-Stratford

3:50 PM	Cloudy 79°F	78°F	54°F	42%	Unlimited	30.09 ↓	From ENE 12mph
4:50 PM	Partly Cloudy 79°F	78°F	55°F	44%	Unlimited	30.08 ↓	From ENE 9mph
5:50 PM	Sunny 79°F	78°F	54°F	42%	Unlimited	30.06 ↓	Variable 7mph
6:50 PM	Sunny 79°F	78°F	54°F	42%	Unlimited	30.06 →	Variable 7mph
7:50 PM	Sunny 75°F	75°F	55°F	50%	Unlimited	30.06 →	From SSW 9mph
Sunset at 8:11 PM							
8:50 PM	Clear 72°F	72°F	55°F	57%	Unlimited	30.07 ↑	From SW 9mph
9:45 PM	Clear 66°F	66°F	57°F	73%	Unlimited	30.09 ↑	From WSW 7mph

Avg 78 30.10

Back to previous page

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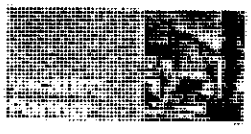
Driving Weather

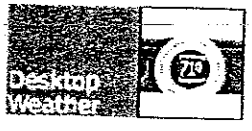
Check curr conditions

Summer Adventure



Find perfec your sumn

Desktop Weather



FREE weat on your de

Health

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

Area 1
0051

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 887 Box 20 941
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/28/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA #

Area 1
0051

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/28/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 887 Box 20-941
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Homewood Disposal — 28 July 2005

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2002)

Area #1

0052

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-975
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Ruhdzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7-28-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

area 1
0052

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-28-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 7H Box @ 20-975
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rickie Brn — 7-28-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area #1

0053

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20-957
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: Sediment
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	
HAULER MAILING ADDRESS: 2320 W. 167th Street	GENERATOR AUTHORIZED SIGNATURE: [signature]
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rudzitis On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7-28-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

Area #1

0053

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-28-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 85 Box 20-957

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MAXWELL — 7-28-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area 2

0054

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

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PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 887 20 926
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE:
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Ruhdzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/28/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA II

Area 2
0054

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/28/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 987 20 ~~88~~ 926
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

American Disposal — 28 Jul 05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

0055
AREA #2

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 86 20 - 126
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE:

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

0055
AREA #2

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 / Box #20-126
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Maxwell 7-28-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day	ppb Raw	ug/m3 Calc.	5-Day
	Limit	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average	Data	Data	Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	780	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	8300	8.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	62000	0.062	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.039	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	9600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	6500	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.039	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	39000	0.039	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.026	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	16000	0.016	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter	Limit	Week of 7/11/2005																											
		7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4		0.000	0.025	1020.6		0.000	0.007	964.2		0.000	0.004
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4		0.000	0.016	1020.6		0.000	0.006	964.2		0.000	0.003
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 253 Page 1 of 2 DATE 29 Jul 2005 - Friday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 63 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher began dredging of the soil due north of the canal in the "jacking pit". Stiff clay was found in the northern segment near the Arcadis system and helped stabilize that area. EQ shipped the remaing 3 roll off boxes. A total of 58 roll off boxes have been shipped from the site. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, and three representatives of Thatcher.

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 253

DATE 29 Jul 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,664.0	Total	8.0	64.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 928.0		Total	8.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:20:44 29-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:20:44 Jul 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:20:44 Jul 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jul	09:25:44	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:15:37 29-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:15:37 Jul 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:15:37 Jul 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jul	11:20:37	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:24:40 29-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.053 mg/m³
Time at maximum: 13:24:41 Jul 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:24:40 Jul 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jul	13:29:40	0.005

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:19:27 29-Jul
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.108 mg/m³
Time at maximum: 15:21:09 Jul 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:19:27 Jul 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Jul	15:24:27	0.009

SAMPLING EQUIPMENT CALIBRATION LOG

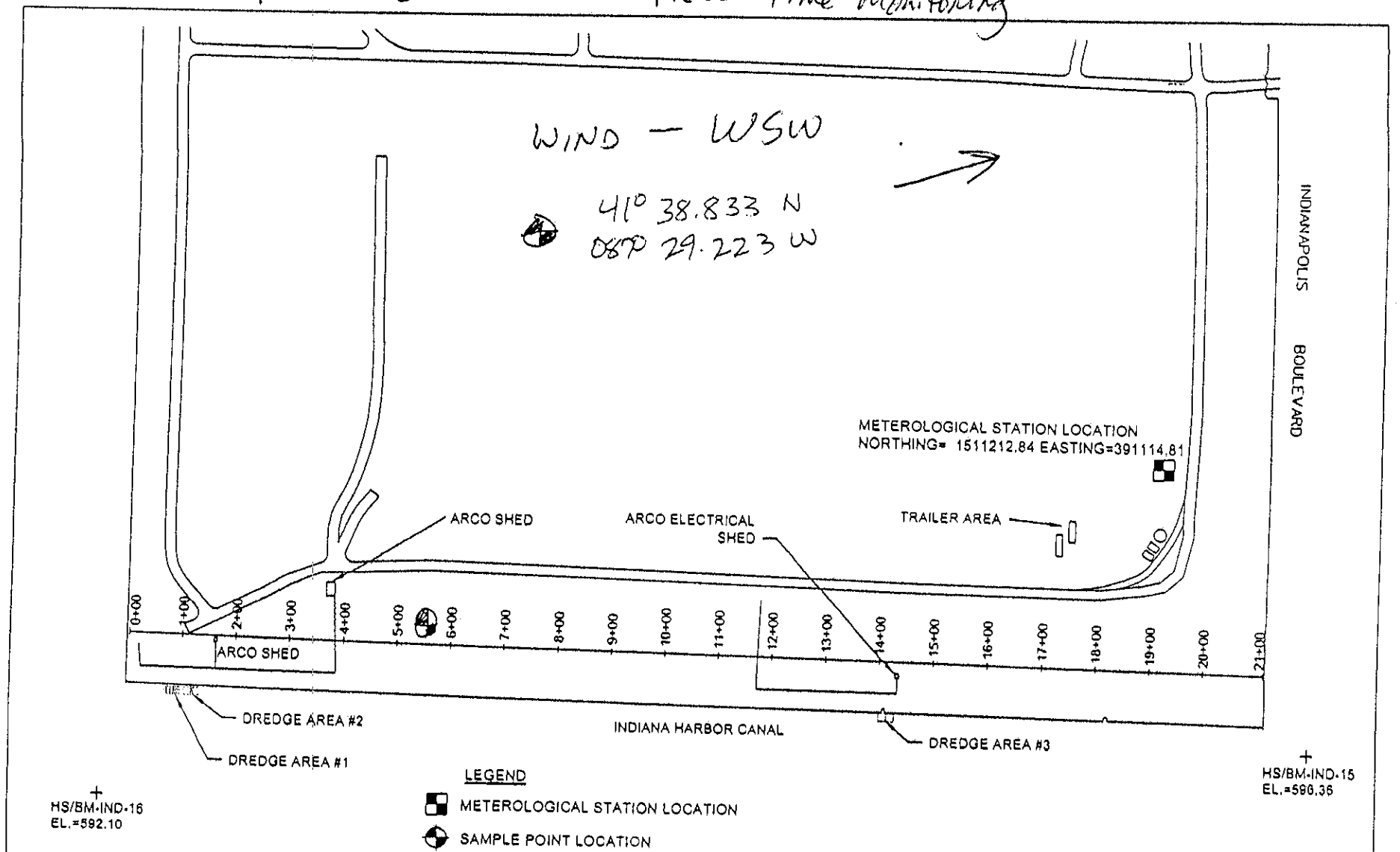
Site Name: Indian Harbor Obstruction Removal

Project No.: 0302444

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
7-29-05 0807	PDR	Bey Hlavy	Zero Calibration	"Cal OK"	Sunny, hot WSW wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

7-29-05 Real Time Monitoring



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

7-29-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

July 29 Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:50 AM	Clear 63°F	63°F	57°F	82%	Unlimited	30.11	Variable 6mph
Sunrise at 5:42 AM							
5:50 AM	Sunny 63°F	63°F	57°F	82%	Unlimited	30.11 →	From SW 8mph
6:50 AM	Sunny 64°F	64°F	57°F	77%	Unlimited	30.13 ↑	From SW 9mph
7:50 AM	Partly Cloudy 70°F	70°F	61°F	73%	Unlimited	30.16 ↑	From WSW 12mph
8:50 AM	Mostly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.16 →	From SW 12mph
9:50 AM	Mostly Cloudy 75°F	76°F	61°F	61%	Unlimited	30.16 →	From SW 9mph
10:50 AM	Partly Cloudy 79°F	79°F	61°F	54%	Unlimited	30.16 →	From SW 12mph
11:50 AM	Partly Cloudy 81°F	81°F	61°F	51%	Unlimited	30.16 →	From WSW 9mph
12:50 PM	Mostly Cloudy 82°F	84°F	63°F	51%	Unlimited	30.16 →	From WSW 9mph
1:50 PM	Mostly Cloudy 82°F	84°F	64°F	54%	Unlimited	30.16 →	From N 9mph
2:46 PM	Mostly Cloudy 79°F	81°F	66°F	65%	10.0 miles	30.17 ↑	From N 14mph
3:50 PM	Partly Cloudy	81°F	66°F	65%	10.0 miles	30.17 →	From N 14mph

Today in East Chicago

- Exercise tips to beat the heat
- Allergy outlook & pollen counts
- Hot weather lawn & garden car
- Weekend grilling & cookout for
- Live local traffic reports

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local weather always on yo
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Special Offers in East Chica

Michigan Avenue Hotel
An Intimate Chicago Hotel Escape Pe

	79°F						
4:50 PM	Partly Cloudy 79°F	82°F	70°F	74%	10.0 miles	30.18 ↑	From N 9mph
5:45 PM	Partly Cloudy 75°F	77°F	66°F	73%	10.0 miles	30.17 ↓	From NNE 14mph
6:50 PM	Partly Cloudy 75°F	77°F	68°F	78%	10.0 miles	30.19 ↑	From NNE 12mph
7:50 PM	Partly Cloudy 73°F	73°F	66°F	78%	10.0 miles	30.19 →	From NNE 9mph
Sunset at 8:10 PM							
8:45 PM	Partly Cloudy 72°F	72°F	64°F	78%	10.0 miles	30.19 →	From NNE 9mph
9:50 PM	Partly Cloudy 70°F	70°F	64°F	83%	10.0 miles	30.21 ↑	Variable 6mph

Back to previous page

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For East Chicago, IN (46312)
OR
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- Walk Off Extra Pounds
- Get Expert Fitness Advice
- Find Your Target Heart Rate

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On-Air Schedule (ET)

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12 PM | Weather Center

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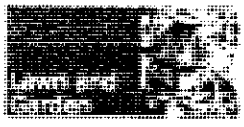
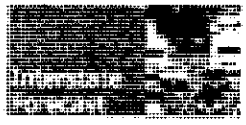
This Week's Features

Summer Lawn Care



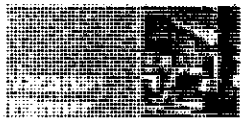
Tips to gro yard in hot weather.

Driving Weather



Check curr conditions

Summer Adventure



Find perfec your sumn

Desktop Weather

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Travel

Find your here!

Area 2
0056

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20 968
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 7/29/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA II

Area 2
0056

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7/29/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 20 968
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Mark Weir — 7-29-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Area 2
0057

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20 964
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	DATE: 7/29/5

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA II

Area 2
0057

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312
Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name
Signature
7/29/5 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428
DOT# 328103
Truck Number: 22 20 964
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Maxwell — Name of Authorized Agent
Signature
7-29-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128
Phone No. 269-756-9252

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)
Signature
Date Received

Form SW02 (2003)

Area #2
0058

DEQ
Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: East Chicago Waterway Mgmt.

GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.

HAULER MAILING ADDRESS: 2320 W. 167th Street

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20-953

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE):

1 TON = 2,000 LBS. 20 YD.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Rutkauskas On Behalf of USACE

DATE: 7-29-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

REPUBLIC SERVICES, INC.

7
0058

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 7-29-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 Box 20-951
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MATWell — Matwell — 7-29-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.860	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.861	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	26.208	984.2	13000	13.209	22.736	1048.0	16000	15.287	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.036	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057
PCB 15		961.3	6700	0.007	0.056	952.3	9600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.036
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	6500	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.015	1048.0	29000	0.028	0.018
PCB28	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.026	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18	979.1	5600	0.006	0.028	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 256

DATE 01 Aug 2005 - Monday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 66 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued dredging of the soil due north of the canal in the "jacking pit". Stiff clay was found in the northern segment near the Arcadis system and helped stabilize that area. DLZ performed the baseline survey of the existing SSP wall. EQ cleared vegitation to facilitate this. A total of 58 roll off boxes have been shipped from the site. No air sampling was performed. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, two surveyors from DLZ, and three representatives of Thatcher.

General Comments:
None

Verbal Instructions given by Government:
John Breslin, Ed Wise, and Tom Mnihan (Griffin Dewatering) met on site to discuss the installation of the dewatering system. Changes were discussed. These will me formalized through Natlie Mils prior to performance of the work.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 256

DATE 01 Aug 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		2.0	16.0
EGM	SAFETY ENGINEER - ON SITE		1.0	8.0
EGM	SUPER - JOB		0.0	0.0
EGM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,736.0	Total	9.0	72.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
74167	Small Crane		8.0	0.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 944.0		Total	8.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:26:44 01-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.014 mg/m³
Time at maximum: 09:26:47 Aug 01
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 09:27:44 Aug 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Aug	09:31:44	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:24:01 01-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.004 mg/m³
Time at maximum: 12:24:30 Aug 01
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:24:01 Aug 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Aug	12:29:01	0.001

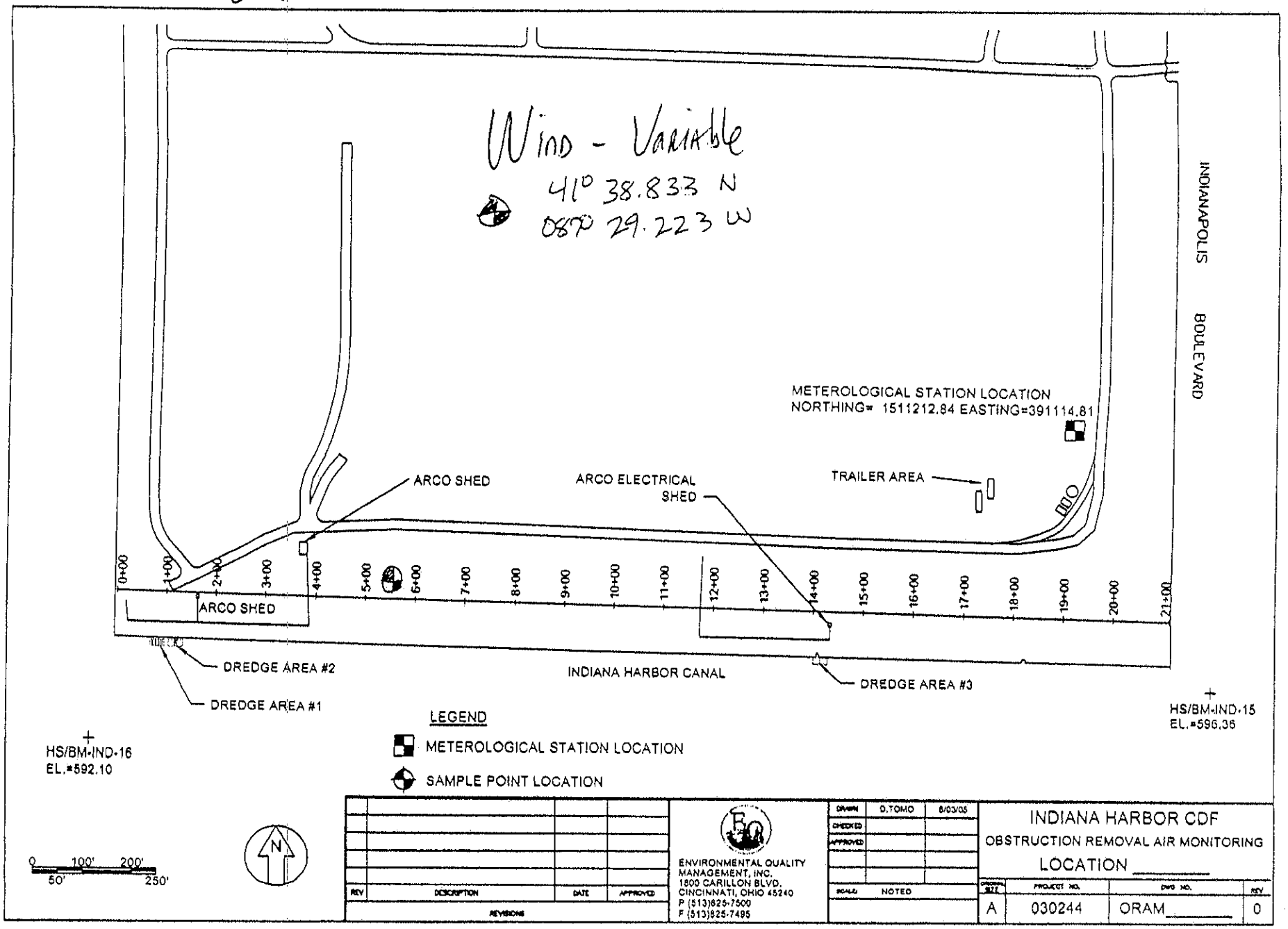
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:24:17 01-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.039 mg/m³
Time at maximum: 13:30:35 Aug 01
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 13:26:47 Aug 01
Overall Avg Conc: 0.002 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Aug	13:29:17	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 14:55:14 01-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.135 mg/m³
Time at maximum: 14:55:19 Aug 01
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 14:59:14 Aug 01
Overall Avg Conc: 0.011 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Aug	15:00:14	0.015

8-1-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-1-05 0747	PDR	Ben Letany	Zero Calibration	"OK"	Sunny, Hot. Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-1-05

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:45 AM	Clear 66°F	66°F	64°F	94%	4.0 miles	30.13	calm
	Sunrise at 5:45 AM						
5:50 AM	Partly Cloudy 66°F	66°F	64°F	94%	3.0 miles	30.14 ↑	calm
6:55 AM	Partly Cloudy 70°F	70°F	68°F	94%	3.0 miles	30.14 →	calm
7:50 AM	Mostly Cloudy 75°F	78°F	72°F	89%	7.0 miles	30.14 →	Variable 3mph
8:50 AM	Mostly Cloudy 81°F	85°F	72°F	74%	10.0 miles	30.14	Variable 6mph
9:45 AM	Partly Cloudy 82°F	86°F	70°F	66%	10.0 miles	30.14 →	From SW 9mph
10:45 AM	Partly Cloudy 88°F	94°F	72°F	58%	10.0 miles	30.14 →	Variable 6mph
11:50 AM	Sunny 91°F	97°F	70°F	49%	10.0 miles	30.13 ↓	Variable 6mph
1:53 PM	Sunny 91°F	98°F	72°F	52%	10.0 miles	30.11 ↓	From NE 9mph
2:45 PM	Partly Cloudy 91°F	96°F	68°F	46%	10.0 miles	30.10 ↓	Variable 6mph
3:50 PM	Partly Cloudy and Windy 91°F	96°F	72°F	52%	10.0 miles	30.09 ↓	From NNE 77mph

Are You Paying Too Much For Au

ZIP code where you park at night.

Do you currently have auto insurance? Ye

Have you had a U.S driver's license for more than 3 years? Ye

Has any driver in your household had 2 or more accidents or moving violations in the last 3 years? Ye

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Feature Finds

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4:50 PM	Partly Cloudy 91°F	100°F	73°F	55%	10.0 miles	30.08 ↓	From NNE 9mph
6:50 PM	Sunny 91°F	96°F	68°F	46%	10.0 miles	30.07	From SSE 9mph
7:55 PM	Sunny 88°F	92°F	70°F	55%	Unlimited	30.08 ↑	From S 9mph
Sunset at 8:07 PM							
8:50 PM	Clear 82°F	86°F	70°F	66%	Unlimited	30.08 →	Variable 7mph
9:50 PM	Clear 81°F	85°F	72°F	74%	Unlimited	30.09 ↑	From SSW 8mph

Back to previous page

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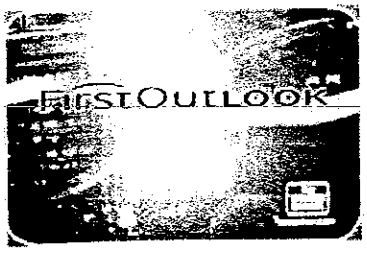

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9 AM	Day Planner
12 PM	Weather Center

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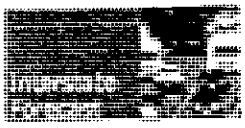
Driving Weather



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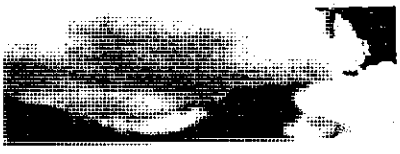


How hot has it been in your hc this summer?

- Hottest summer that I can ev
- Definitely hotter than normal
- It's been just about normal fc
- Actually, it's been cooler than

Vote View Resul

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	6/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057
PCB 15		961.3	6700	0.007	0.065	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	6000	0.006	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.197	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	961.1	21000	0.022	0.037	983.2	7500	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/5/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/6/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28	1075.7	49000	0.045	0.026	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.006	964.2		0.000	0.003
PCB 15	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18	979.1	5800	0.006	0.026	973.4		0.000	0.026	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31	979.1	4700	0.005	0.016	973.4		0.000	0.016	1020.5		0.000	0.006	964.2		0.000	0.003
PCB77	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of																					
		6/27/2005		6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.256	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.978	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.962	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.418	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter		Week of																					
		7/4/2005		7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter		Week of																					
		7/11/2005		7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.638	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 257 Page 1 of 2 DATE 02 Aug 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Mn 68 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued dredging of the soil due north of the canal in the "jacking pit". Progress was slow due to slippage of sand from the north. The location of the pipes as they rise from the pit was identified. Ten pipes are in the pit. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, and three representatives of Thatcher.

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 257

DATE 02 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		2.0	8.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	4,800.0	Total	9.0	64.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 960.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE 8/2/5	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:49:07 02-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.009 mg/m³
Time at maximum: 09:50:13 Aug 02
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:49:07 Aug 02
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Aug	09:54:07	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:41:38 02-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.134 mg/m³
Time at maximum: 11:41:39 Aug 02
Max STEL Concentration: 0.030 mg/m³
Time at max STEL: 11:47:38 Aug 02
Overall Avg Conc: 0.074 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Aug	11:46:38	0.078

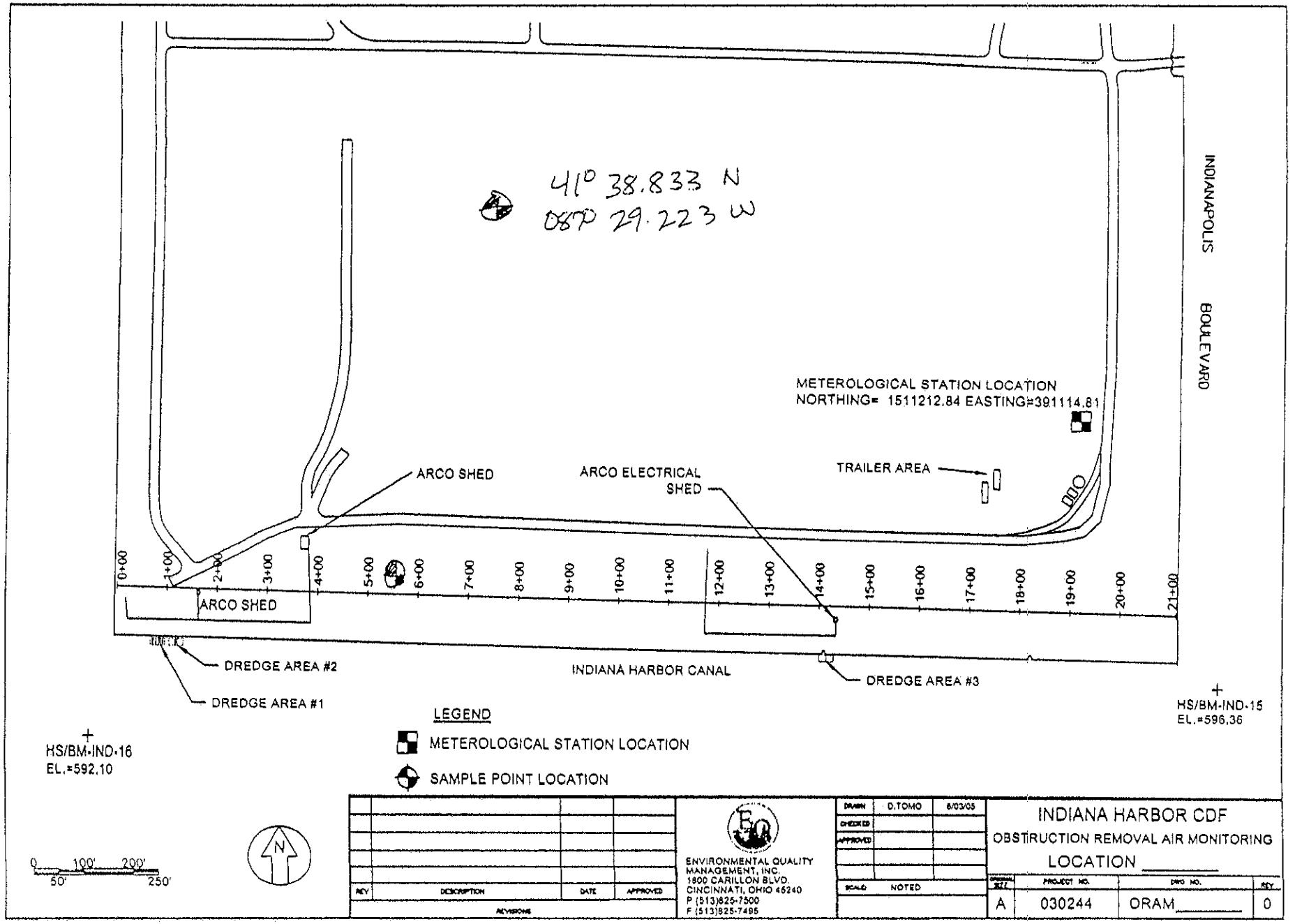
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:53:55 02-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.324 mg/m³
Time at maximum: 13:53:56 Aug 02
Max STEL Concentration: 0.011 mg/m³
Time at max STEL: 13:58:55 Aug 02
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Aug	13:58:55	0.033

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:05:14 02-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.066 mg/m³
Time at maximum: 15:05:31 Aug 02
Max STEL Concentration: 0.021 mg/m³
Time at max STEL: 15:13:14 Aug 02
Overall Avg Conc: 0.040 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Aug	15:10:14	0.043

8-2-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
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APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-2-05 0815	PDR	[illegible]	Zero Calibration	"Cal Ok"	Sunny, Hot, Humid Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-2-05

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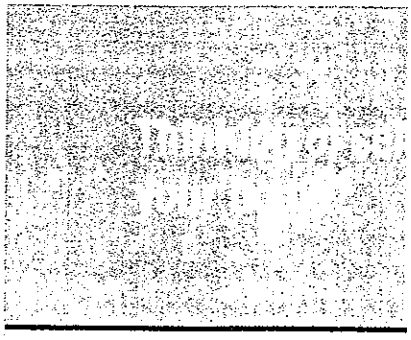
Yesterday | Today | Hour-by-Hour | Weekend | 10-Day | Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:45 AM	Clear 73°F	73°F	70°F	88%	5.0 miles	30.08	calm
Sunrise at 5:45 AM							
5:55 AM	Sunny 68°F	68°F	66°F	94%	5.0 miles	30.09 ↑	calm
6:50 AM	Sunny 72°F	72°F	70°F	94%	5.0 miles	30.10 ↑	calm
7:45 AM	Haze 77°F	80°F	72°F	83%	6.0 miles	30.10 →	calm
8:45 AM	Sunny 82°F	87°F	72°F	70%	7.0 miles	30.11 ↑	calm
9:50 AM	Sunny 84°F	88°F	70°F	62%	10.0 miles	30.11 →	From SSW 9mph
10:45 AM	Sunny 88°F	94°F	72°F	58%	10.0 miles	30.10 ↓	From SSW 9mph
11:45 AM	Sunny 91°F	98°F	72°F	52%	10.0 miles	30.10 →	From SW 9mph
1:45 PM	Partly Cloudy 72°F	72°F	66°F	83%	10.0 miles	30.06 ↓	From SSW 12mph
2:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	7.0 miles	30.04 ↓	From S 16mph
3:50 PM	Partly Cloudy 91°F	97°F	70°F	49%	7.0 miles	30.03 ↓	From SSW 14mph
4:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	7.0 miles	30.02 ↓	From SSW 12mph



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5:50 PM	Partly Cloudy 91°F	97°F	70°F	49%	7.0 miles	30.01 ↓	From SW 9mph
6:50 PM	Partly Cloudy 91°F	98°F	72°F	52%	7.0 miles	30.01 →	From SSW 8mph
7:50 PM	Partly Cloudy 88°F	94°F	72°F	58%	7.0 miles	30.01 →	From SSW 8mph
Sunset at 8:06 PM							
8:50 PM	Partly Cloudy 79°F	83°F	72°F	78%	7.0 miles	30.02 ↑	Variable 6mph
9:50 PM	Clear 75°F	78°F	72°F	89%	7.0 miles	30.03 ↑	Variable 6mph

Back to previous page

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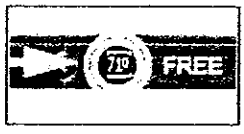

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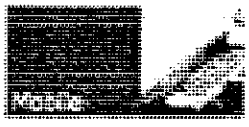

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of																			
		6/27/2005		6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	660	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter		Week of																			
		7/4/2005		7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter		Week of																			
		7/11/2005		7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	9900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.025	1048.0	35000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1600	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.005	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter	Limit	Week of 7/11/2005																											
		7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 258 Page 1 of 2 DATE 03 Aug 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 75 °F, Max 93 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued dredging of the soil due north of the canal in the "jacking pit". They also had a dive teamin to clear the eastern pipes for removal. They exerienced problems with their saw and were unable to make any cuts. Air sampling resumed. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, and seven representatives of Thatcher (including the four man dive team).

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 258

DATE 03 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		2.0	8.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	4,928.0	Total	13.0	96.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 976.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE 8/4/5	SUPERINTENDENT'S INITIALS	DATE 8/4/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 2
Start time and date: 09:15:32 03-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.014 mg/m³
Time at maximum: 09:20:16 Aug 03
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:15:32 Aug 03
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	3-Aug	09:20:32	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 2
Start time and date: 11:20:13 03-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.001 mg/m³
Time at maximum: 11:30:21 Aug 03
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:20:13 Aug 03
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	3-Aug	11:25:13	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:43:36 03-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:43:36 Aug 03
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:43:36 Aug 03
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	3-Aug	13:48:36	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:31:53 03-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.069 mg/m³
Time at maximum: 15:32:03 Aug 03
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:31:53 Aug 03
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	3-Aug	15:36:53	0.003

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13189

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lotony / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: 70-13/8270	TESTS: 70-13/1668
Semi-Vol 080305	8-3-05	24hr	Filter	1,044.9L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	8-4-05	915		8/4/05	915
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7DAY 8/12/05

Report To: Jackie Dann

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13188

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Lebang

/EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: PCB
Vol 080305	8/3/05	24hr	Sediment	6L	1	X

Relinquished by: (Signature) Ben Lebang — Date 8/4/05 — Time 915

Received by: (Signature) [illegible] — Date 8/4/05 — Time 915

Relinquished by: (Signature) — Date — Time

Received by: (Signature) — Date — Time

Ship To: STL- Pick up on site

Site: Inchona Harbor
PN 030244
Date: 8/3/05
Page: 1 of 1

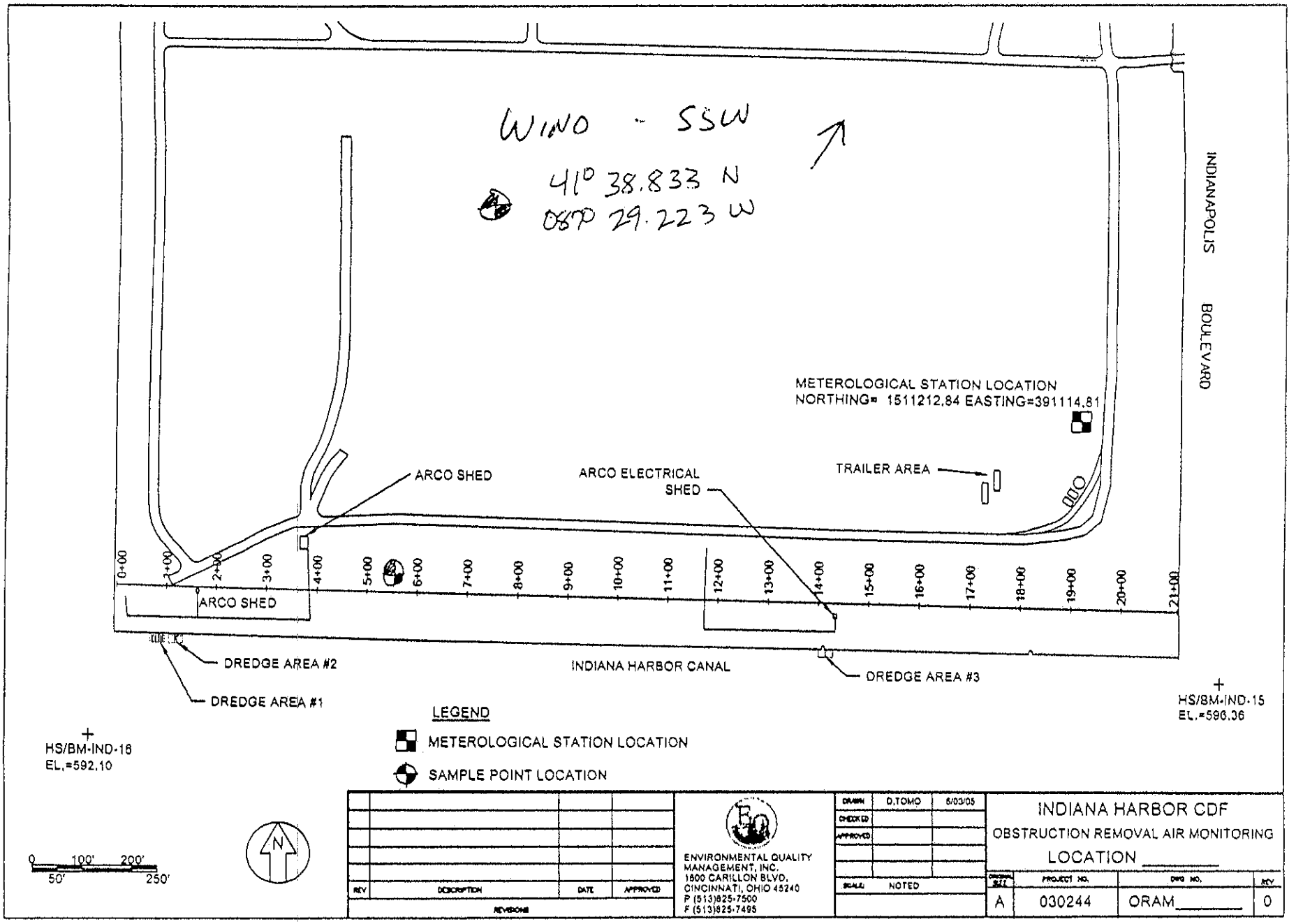
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ HR	Air Volume, liters
TO-15	VCC 080305					07:15	07:15	24hr.	6L
TO-13	SUMMA 080305					07:15	07:15	24hr.	1,044.9L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: Dredging, Testing Around Piers
Weather conditions: Sunny, Hot, Humid SSW WIND
Analytical lab: STL COC Number: EQ 13188, 13189

8-3-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	5/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-3-05 0751	PDR	[illegible]	Zero Calibration	"Cal OK"	WIND SSW

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-3-05

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
			Sunrise at 5:46 AM				
5:50 AM	Partly Cloudy 75°F	78°F	70°F	83%	5.0 miles	30.02	Variable 6mph
6:50 AM	Partly Cloudy 75°F	78°F	70°F	83%	5.0 miles	30.01 ↓	Variable 7mph
7:50 AM	Partly Cloudy 79°F	82°F	70°F	74%	7.0 miles	30.01 →	From SSW 12mph
9:55 AM	Partly Cloudy 86°F	91°F	72°F	62%	7.0 miles	30.03 ↑	From SSW 12mph
10:50 AM	Partly Cloudy 90°F	97°F	73°F	59%	7.0 miles	30.02 ↓	From SSW 12mph
11:50 AM	Partly Cloudy 91°F	98°F	72°F	52%	10.0 miles	30.00 ↓	From SSW 12mph
12:50 PM	Partly Cloudy 91°F	97°F	70°F	49%	10.0 miles	29.99 ↓	From SSW 14mph
1:50 PM	Mostly Cloudy 93°F	101°F	72°F	49%	10.0 miles	29.98 ↓	From WSW 12mph
2:50 PM	Mostly Cloudy 91°F	96°F	68°F	46%	10.0 miles	29.97 ↓	From SSW 12mph
3:50 PM	Mostly Cloudy 93°F	100°F	70°F	46%	10.0 miles	29.95 ↓	From SW 14mph
4:50 PM	Mostly Cloudy 91°F	100°F	73°F	55%	10.0 miles	29.93 ↓	From SSW 12mph
	Mostly						

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5:50 PM	Cloudy 91°F	102°F	75°F	59%	7.0 miles	29.94 ↑	From SW 12mph
6:54 PM	Mostly Cloudy 91°F	102°F	75°F	59%	7.0 miles	29.93 ↓	From SSW 8mph
7:45 PM	Mostly Cloudy 88°F	97°F	75°F	66%	7.0 miles	29.95 ↑	From SSW 9mph
Sunset at 8:05 PM							
8:55 PM	Cloudy 84°F	91°F	73°F	70%	7.0 miles	29.97 ↑	From SSW 7mph
9:50 PM	Cloudy 84°F	91°F	73°F	70%	7.0 miles	29.97 →	From SSW 7mph

Avg 87° 1997

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter		Week of																					
		6/27/2005		6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.486	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.368	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	6000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter		Week of																					
		7/4/2005		7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.283	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter		Week of																					
		7/11/2005		7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
	Limit	Sample Volume (liters)	ng Raw Data	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 6/27/2005																											
		6/27/2005				6/28/2005				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.016	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.036	984.2	23000	0.023	0.036	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.056	952.3	8600	0.009	0.043	994.8	14000	0.014	0.019	961.1	6000	0.006	0.010	983.2	1600	0.002	0.006	984.2	5600	0.006	0.007	1048.0	8600	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	9300	0.009	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	36000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.167	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter	Limit	Week of 7/11/2005																											
		7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	6800	0.006	0.029	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 259 Page 1 of 2 DATE 04 Aug 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 79 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?

No

Activities in Progress:

Thatcher cut the 6th and 7th pipes from the west near the south wall of the coffer dam. They then tried to remove the 6th pipe by pulling on it from the jacking pit with the track hoe. A section of the pipe was removed, but it had seperated at a coupling. The portion inside the coffer dam remained. They attempted to remove the 7th pipe in this manner, but it would not yield. Griffin continued with installation of the dewatering system at the tie back investigation site. Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?

No

Work Force, Personnel On Site

Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, three representatives of Griffin, and seven representatives of Thatcher (including the four man dive team).

General Comments:

None

Verbal Instructions given by Government:

None.

Safety Inspection / Safety Meetings:

Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):

None.

Safety: Corrective Action taken:

None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 259

DATE 04 Aug 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
BQM	SAFETY ENGINEER - ON SITE		1.0	8.0
BQM	SUPER - JOB		0.0	0.0
BQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		3.0	24.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	5,008.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 992.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

OPERATIONS SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:28:05 04-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.036 mg/m³
Time at maximum: 09:29:57 Aug 04
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 09:33:05 Aug 04
Overall Avg Conc: 0.022 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	4-Aug	09:33:05	0.023

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:43:58 04-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.055 mg/m³
Time at maximum: 11:45:08 Aug 04
Max STEL Concentration: 0.009 mg/m³
Time at max STEL: 11:48:58 Aug 04
Overall Avg Conc: 0.025 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	4-Aug	11:48:58	0.026

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:34:44 04-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.098 mg/m³
Time at maximum: 13:39:50 Aug 04
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 13:39:44 Aug 04
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	4-Aug	13:39:44	0.011

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:15:49 04-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.083 mg/m³
Time at maximum: 15:15:50 Aug 04
Max STEL Concentration: 0.010 mg/m³
Time at max STEL: 15:20:49 Aug 04
Overall Avg Conc: 0.030 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	4-Aug	15:20:49	0.03

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13190

No.	Project Name																	
0302411	Indiana Harbor Obstruction Removal																	
s/Affiliation: (Print Name and Sign)				Lab P.O. No:														
en Lotany	Ben Lotany / EQM			9132														
ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15												
080405	8-4-05	24hr.	Sound Water	6L	1	X												

ished by: (Signature) Ben Lotany	Date 8-5-05	Time 1305	Received by: (Signature) M McRoberts.	Date 8.5.05	Time 1305	Ship To: STL- Dick Upon S.P
ished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
ished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number
ng/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-DAY 8/15/05		Report To: Jackie Doan			Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-

ct No.	Project Name																						
0302461	Indiana Harbor Obstruction Removal																						
plers/Affiliation: (Print Name and Sign)				Lab P.O. No:																			
Ben Lotrong / Safety / EQM				9132																			
ple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TC-13	TC-13																
Ini-Vol 080405	8-4-05	24h	Elkr	1,029.6 L	2	x	x																

quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Ship To:
Safety	8-5-05	1305	Mike Mikolaitis	8-5-05	1305	STL - Pick up on Site
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Airbill Number

rting/QA Requirements:	Turn Around Time (EXACT DUE DATE):	Report To:	Chain of Custody Seal Numbers
	7-DAY 8/15/05	Jackie Doan	

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

Site: Indiana Harbor
PN: 030244
Date: 8/4/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, ~~min.~~ hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC 080405					07:15	07:15	24	6L
TO-13	Semi Vol 080405					07:15	07:15	24	1029.6L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Sampling, Diving, Cont - Pics
Weather conditions: Hot, Humid, Clear, Wind
Analytical lab: STL QQC Number: EQ 13190, 13191

SAMPLING EQUIPMENT CALIBRATION LOG

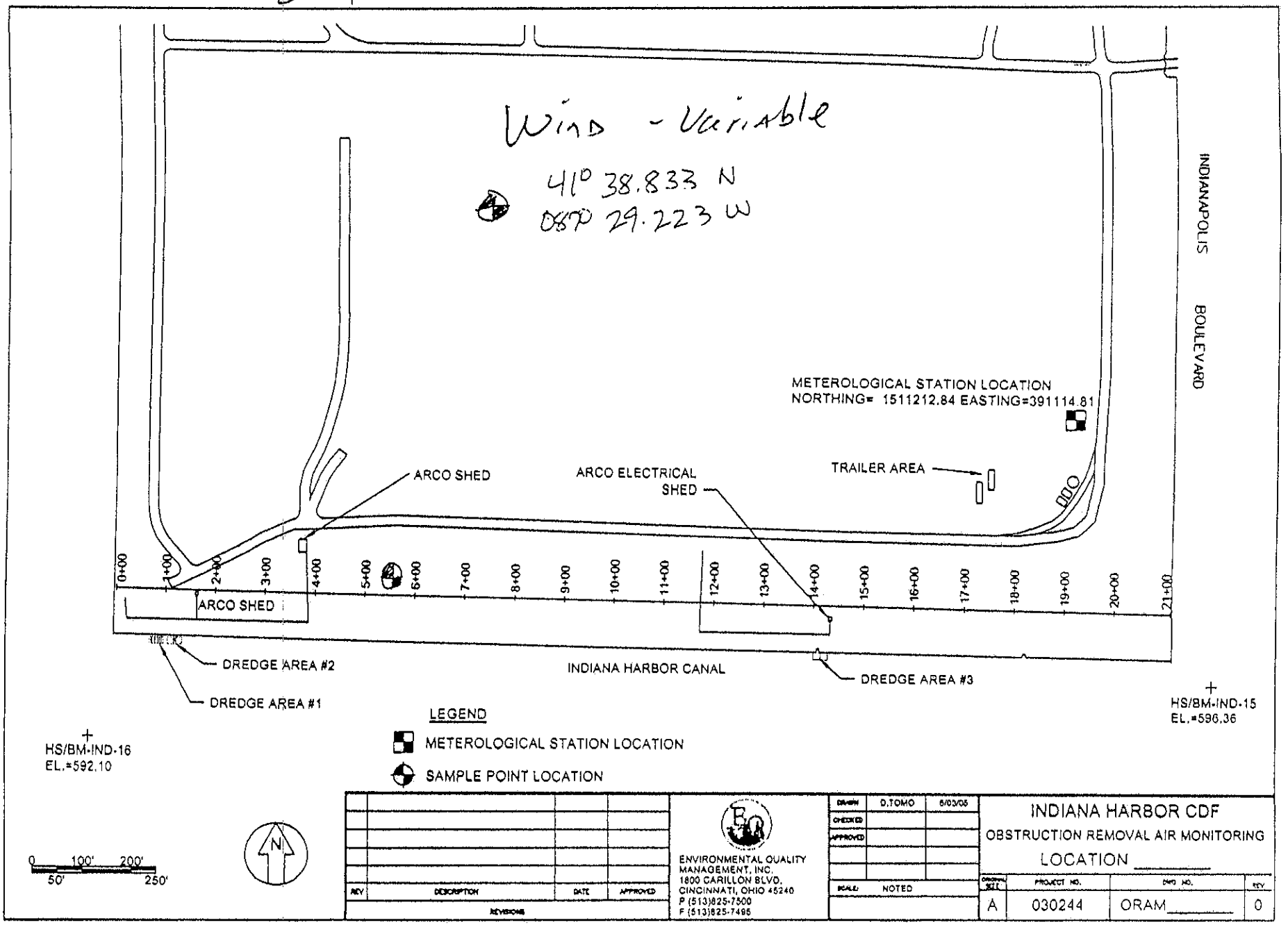
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-4-05 0757	PDR	Benz [illegible]	Zero Calibration	"Cal OK"	Sunny Hot, Humid Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-4-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM _____	0

8-4-05

Enter city or US zip See weather related to .... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Cloudy **81°F**	**86°F**	73°F	79%	7.0 miles	29.98	From SSW 12mph
	Sunrise at 5:47 AM						
5:50 AM	Light Rain **79°F**	**83°F**	72°F	78%	7.0 miles	29.97 ↓	From S 14mph
6:50 AM	Cloudy **79°F**	**83°F**	73°F	83%	5.0 miles	29.97 →	From SSE 9mph
7:50 AM	Cloudy **79°F**	**83°F**	73°F	83%	4.0 miles	29.96 ↓	From SSE 9mph
8:50 AM	Cloudy **81°F**	**87°F**	75°F	84%	5.0 miles	29.98 ↑	From S 12mph
9:50 AM	Cloudy **81°F**	**86°F**	73°F	79%	7.0 miles	29.99 ↑	From SSW 12mph
10:50 AM	Haze **82°F**	**88°F**	73°F	74%	5.0 miles	30.03 ↑	From WSW 12mph
11:50 AM	Haze **81°F**	**87°F**	75°F	84%	6.0 miles	30.03 →	From SW 12mph
12:50 PM	Haze **81°F**	**86°F**	73°F	79%	6.0 miles	30.00 ↓	From SW 12mph
1:50 PM	Cloudy **82°F**	**90°F**	75°F	79%	7.0 miles	30.01 ↑	From SW 9mph
2:50 PM	Haze **82°F**	**91°F**	77°F	84%	5.0 miles	30.01 →	From WSW 9mph
3:50 PM	Haze **84°F**	**92°F**	75°F	74%	5.0 miles	29.99 ↓	From SW 12mph
4:50	Mostly Cloudy	**106°F**	79°F	66%	7.0 miles	29.99 →	From WSW

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PM	91°F						12mph
5:55 PM	Mostly Cloudy 91°F	104°F	77°F	63%	10.0 miles	29.99 →	From W 12mph
6:55 PM	Mostly Cloudy 88°F	97°F	75°F	66%	10.0 miles	30.00 ↑	From W 12mph
7:55 PM	Mostly Cloudy 84°F	91°F	73°F	70%	Unlimited	30.01 ↑	From W 7mph
Sunset at 8:04 PM							
8:50 PM	Mostly Cloudy 81°F	86°F	73°F	79%	Unlimited	30.05 ↑	From NNE 12mph
9:50 PM	Mostly Cloudy 81°F	84°F	70°F	70%	Unlimited	30.07 ↑	From NNE 7mph

avg. 82° 30.00

Back to previous page

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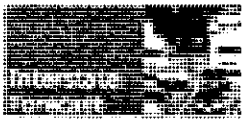
Tips to gro yard in hot weather.

Driving Weather



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Summer Adventure

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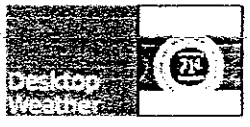
Desktop Weather



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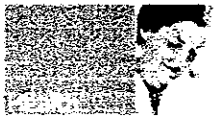

eather a

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Ave St In Harbor Canal

JOB NO: 383 DATE: 8-3-85

VIS: TEMP:

DIVER: Villareal

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	SI		Depth	
LS	1010	NG	LS	NG		LS	
LB	1233	RNT	LB	RNT		LB	
BT			BT			ST	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diving Amlifting ground piping

BO. 2600 BI !

DIVER: Stowitt

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	SI		Depth	
LS	1312	NG	LS	NG		LS	
LB	1458	RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS	100		TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Down to Air Saw Pipe 4"

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Sys. In Harbor Canal

JOB NO: 083 DATE: 8-3-85

VIS: TEMP:

DIVER: Villarreal

DIVE 1			DIVE 2			DIVE 3		
Depth	30	SI	Depth		SI	Depth		
LS	1010	NG	LS		NG	LS		
LB	1233	RNT	LB		RNT	LS		
BT			BT			ST		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diving Amlifting ground piping

BO. 2600 BI !

DIVER: Stowitt

DIVE 1			DIVE 2			DIVE 3		
Depth	30	SI	Depth		SI	Depth		
LS	1312	NG	LS		NG	LS		
LB	1458	RNT	LB		RNT	LB		
BT			BT			BT		
DECO			RNT +			RNT +		
RS	100 min BI		TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		
			TBL			TBL		

REMARKS: Diver Down to Air Saw pipe 4"

DIVER:

DIVE 1			DIVE 2			DIVE 3		
Depth		SI	Depth		SI	Depth		
LS		NG	LS		NG	LS		
LB		RNT	LB		RNT	LB		
BT			BT			BT		
DECO			RNT +			RNT +		
RS			TBT =			TBT =		
RG			DECO			DECO		
TBL			RS			RS		
			RG			RG		

8-3-05

Onyx Special Services, Inc **MARINE SERVICES** Job Safety Analy

140159E-05-072 Pipe Removal

Plant:	Contact: Tom Schaff	Date: 8-3-05
Location/Unit: In Harbor canal	Time JSA Completed: 09:18	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Removing pipes From area 7 #	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noisy equip

8-5-05.

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analy**

140159E-05-072 Pipe Removal.

Plant:	Contact: Tom Schelp	Date: 8-3-05
Location/Unit: In Harbo canal.	Time JSA Completed: 09:18.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Rd Moving pipes From area 7 #	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A. [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noisy equip

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/A	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAI
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground / SeaWall	LifeJack within 4' of Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Mat'l in Water	Clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind after Duration
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipes	CareFull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip, etc.	Jet pump / Air Drill	CareFull with this Equip
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact w/ ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05	08		

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	N/a [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	N/a [ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZAI
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	LifeJack within 4' of Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Matl in Water	Clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind after Diversion
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipe	Carefull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a Jet pump / Air Drill	Carefull with this Equip
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.		
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact w/ ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher JOB NO: DATE: 06-04-05

VIS: X TEMP: 80°

Bail out 3100
SIBS 3900

DIVER: JACK Berlow

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0905	NG	LS	NG		LS	
LB	1233	RNT	LB	RNT		LB	
BT			BT			BT	
DECO	206 TBT.		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Dave to dig hole and cut #1 pipe.

DIVER: Howitt S.

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	1319 1210	NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT	1435		BT			BT	
DECO			RNT +			RNT +	
RS	101 TBT		TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher

JOB NO:

DATE: 06-04-05

VIS: X

TEMP: 80°

Bail out 2100
SBD 3900

DIVER: Jack Berdan

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0905	NG	LS	NG		LS	
LB	1233	RNT	LB	RNT		LB	
BT			BT			ST	
DECO	206 TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Dave to dig hole and cut #1 pipe.

DIVER: Stowitt S.

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	1319	NG	LS	NG		LS	
LB	1319	RNT	LB	RNT		LB	
BT	1435		BT			BT	
DECO			RNT +			RNT +	
RS	101 TBT		TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

8/3/05 4 8/4/05

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analy**

140159E-05-072 Pipe Removal

Plant:	Contact: Tom Schelp	Date: 8-3-05
Location/Unit: In Harbo canal	Time JSA Completed: 09:18	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Removing pipes From area 7 #	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:
Fire Extinguisher Available: yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noisy Equip

8/3/05 & 8/4/05

Onyx Special Services, Inc **MARINE SERVICES** Job Safety Analy

140159E-05-072 Pipe Removal

Plant:	Contact: Tom Schers	Date: 8-3-05
Location/Unit: In Harbo canal.	Time JSA Completed: 09:18.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Rd Moving pipes From area 1 #	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noisy Equip

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew N/a [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZA
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground / SeaWall	life Jack within 4' of Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Matl in Water	clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind after Duration
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipe.	Carefull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet pump / Air Drill	Carefull with this Equip.
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact w/ ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/A	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZA
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground / SeaWall	LifeJack within 4' of Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Matl in Water	Clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind after Duration
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipe.	CareFull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a Jet pump / Air Drill	CareFull with this Equip
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.		
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact w/ ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run

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I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Rew Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.6	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6800	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	760	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	680	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.336
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.446	983.2	ND	0.254	0.366	984.2	820	0.830	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	960	0.976	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.446
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	16000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Semple		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter		Week of 6/27/2005																											
		6/27/2005				6/26/2006				6/29/2005				6/30/2005				7/1/2005				7/2/2005				7/3/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.039	0.021	994.8	82000	0.082	0.057	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	5600	0.006	0.007	1048.0	8800	0.008	0.007
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044	961.1	15000	0.016	0.040	983.2	8300	0.008	0.022	984.2	16000	0.016	0.016	1048.0	29000	0.028	0.018
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.036	994.8	37000	0.037	0.036	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	36000	0.036	0.041	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	36000	0.033	0.025
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1800	0.002	0.003	1048.0	1700	0.002	0.002
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Parameter		Week of 7/4/2005																											
		7/4/2005				7/5/2005				7/6/2005				7/7/2005				7/8/2005				7/9/2005				7/10/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
Total	1000.0			0.164	0.000			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Parameter		Week of 7/11/2005																											
		7/11/2005				7/12/2006				7/13/2005				7/14/2005				7/16/2005				7/18/2005				7/17/2005			
	Limit	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.006	964.2		0.000	0.003
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4		0.000	0.026	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4		0.000	0.016	1020.5		0.000	0.005	964.2		0.000	0.003
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitila Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 260

DATE 05 Aug 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Mn 73 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher excavation and cutting of pipes in the coffer dam. Work continued on pipes 6 and 7 from the west. No pipes were completely removed. Griffin continued with installation of the dewatering system for the tie back investigation. Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, three personnel from Griffin, and seven representatives of Thatcher (including the four man dive team).

General Comments:
None

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 260

DATE 05 Aug 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EOM	SAFETY ENGINEER - ON SITE		1.0	8.0
EOM	SUPER - JOB		0.0	0.0
EOM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		3.0	24.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	5,120.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 1,008.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	8/8/5	[signature]	8/8/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:22:31 05-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.044 mg/m³
Time at maximum: 09:22:33 Aug 05
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:22:31 Aug 05
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Aug	09:27:31	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:30:33 05-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.216 mg/m³
Time at maximum: 11:32:46 Aug 05
Max STEL Concentration: 0.030 mg/m³
Time at max STEL: 11:34:03 Aug 05
Overall Avg Conc: 0.087 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Aug	11:35:33	0.094

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:32:13 05-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.115 mg/m³
Time at maximum: 13:35:18 Aug 05
Max STEL Concentration: 0.007 mg/m³
Time at max STEL: 13:35:43 Aug 05
Overall Avg Conc: 0.020 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Aug	13:37:13	0.022

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:14:02 05-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.265 mg/m³
Time at maximum: 15:18:45 Aug 05
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 15:19:02 Aug 05
Overall Avg Conc: 0.024 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	5-Aug	15:19:02	0.025

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ- 13192**

Project No.	Project Name
030214	Indiana Harbor Obstruction

Samplers/Affiliation: *(Print Name and Sign)* Ben Letang / [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No of Containers	TESTS: TO-15
VOC 050505	8-5-05	23.5	N. Sump Quality	6L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	8-6-05	8:15	[illegible]	8/6/05	8:15
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: Drop at STL-VA/PO for Shipment

Airbill Number

Reporting/QA Requirements:

Turn Around Time (***EXACT DUE DATE***): 7 Day 8/15/05

Report To: Jackie Dann

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: **EQ-** 1319

Project No.	Project Name
0302141	Indiana Harbor Obstruction Removal

Samplers/Affiliation: *(Print Name and Sign)* Ben Lotang / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO13/8270	TO13/1668
[illegible] 050505	5505	7:35	Filter	996 L	2	X	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	5/5/05	7:15	[illegible]	[illegible]	[illegible]
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To: Drop off STL - VA (PO for Shipment)

Airbill Number

Reporting/QA Requirements:

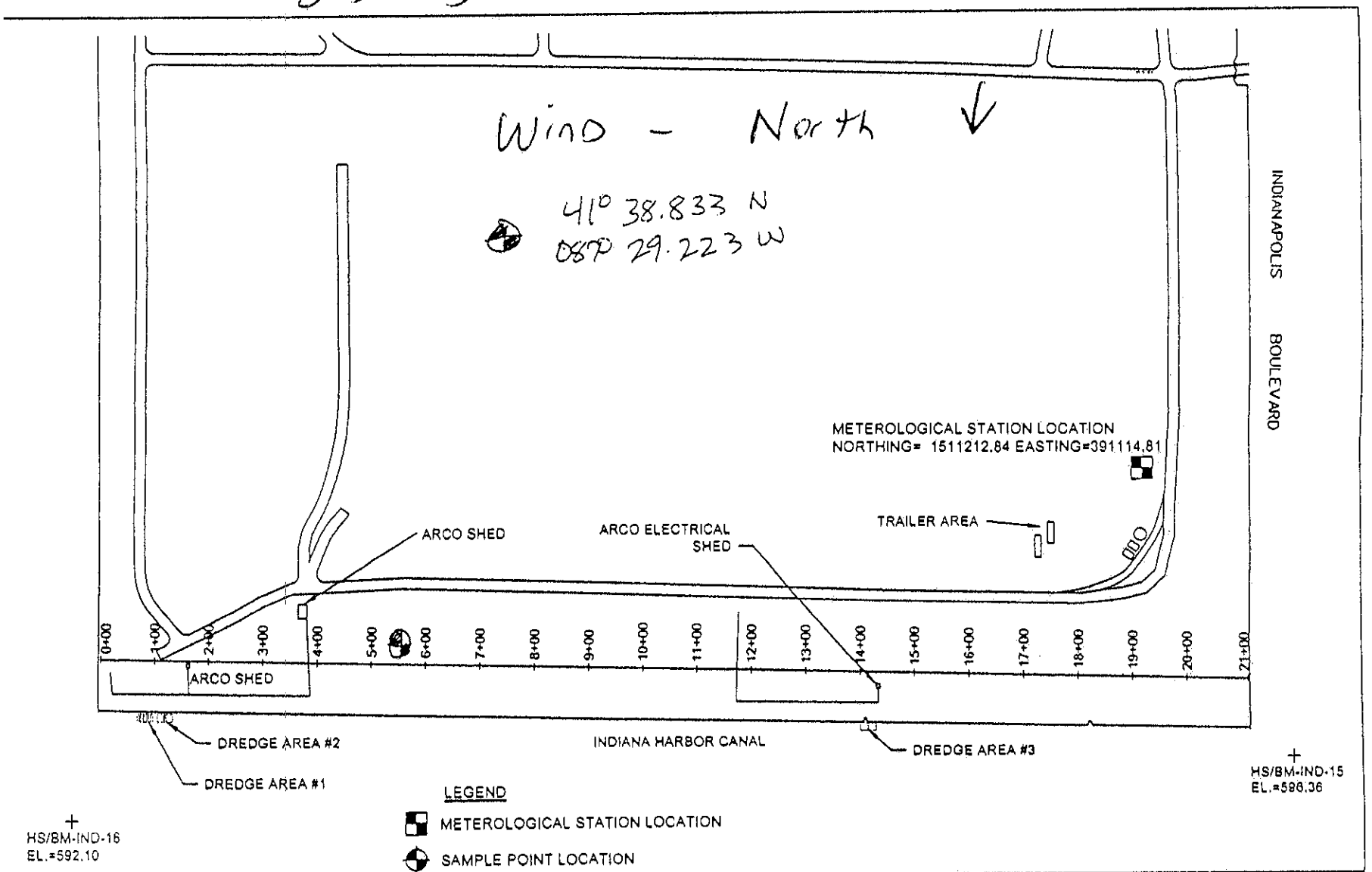
Turn Around Time (*EXACT DUE DATE*): 7-Day 5/15/05

Report To: Tarkie Down

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

8-5-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-5-05 0802	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Hot, Humid NORTH WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

SAMPLING DATA SHEET

Site: FN. Harbor
PN 030241
Date: 8/5/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr	Air Volume, liters
TO-15	VC 080505					07:15	06:45	23.5	6
TO-13	Semi-VC 080505					07:15	06:45	23.5	996L
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature] Calculations by: [signature] Checked by:

Activities performed on site: Diving: Dredging
Weather conditions: Sunny, Hot Humid, North Wind
Analytical lab: STL COC Number: EQ 13192, 13193

8-5-05

Enter city or US zip See weather related to ... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Mostly Cloudy 75°F	76°F	61°F	61%	Unlimited	30.14	From NNW 12mph
Sunrise at 5:48 AM							
5:50 AM	Mostly Cloudy 75°F	76°F	63°F	65%	Unlimited	30.14 →	From NNW 12mph
6:55 AM	Cloudy 75°F	76°F	63°F	65%	Unlimited	30.17 ↑	From N 14mph
7:50 AM	Cloudy 77°F	79°F	66°F	69%	Unlimited	30.19 ↑	From N 9mph
8:50 AM	Cloudy 79°F	81°F	68°F	69%	Unlimited	30.19 →	From N 9mph
9:50 AM	Mostly Cloudy 79°F	81°F	68°F	69%	Unlimited	30.19 →	From N 7mph
10:50 AM	Mostly Cloudy 79°F	81°F	68°F	69%	Unlimited	30.20 ↑	From N 9mph
11:50 AM	Mostly Cloudy 79°F	81°F	68°F	69%	Unlimited	30.20 →	From NNE 12mph
12:50 PM	Mostly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.21 ↑	From N 9mph
1:50 PM	Mostly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.20 ↓	From N 12mph
2:50 PM	Mostly Cloudy 81°F	82°F	64°F	58%	Unlimited	30.20 →	From N 14mph
3:45 PM	Mostly Cloudy	82°F	63°F	54%	Unlimited	30.19 ↓	From N [illegible]mph

The new Jett

Drivers v

Today in East Chicago

- Exercise tips to beat the heat
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		81°F						
4:55 PM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.18 ↓	From N 12mph
5:50 PM	Partly Cloudy 79°F	80°F	64°F	61%	Unlimited	30.17 ↓	From N 12mph
6:45 PM	Mostly Cloudy 79°F	80°F	63°F	57%	Unlimited	30.16 ↓	From N 9mph
7:50 PM	Mostly Cloudy 75°F	76°F	63°F	65%	Unlimited	30.16 →	From NNE 9mph
Sunset at 8:02 PM							
8:50 PM	Partly Cloudy 73°F	73°F	63°F	69%	Unlimited	30.16 →	From NNE 7mph
9:55 PM	Partly Cloudy 73°F	73°F	61°F	65%	Unlimited	30.17 ↑	Variable 5mph

Avg 78° 30.17

Back to previous page

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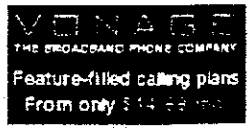
Feature Finds



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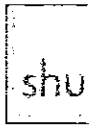


Print & S
summer
Shutterf

This Week's Features

Summer Lawn Care

Tips to gro yard in hot weather.

Driving Weather

Check curr conditions

Summer Adventure

Find perfec your sumn

Desktop Weather

FREE weal on your de

Health

Weather a

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher E. [illegible] IN Harbor & Canal Job 2603 PSI B.O.

JOB NO: 072 DATE: 8-5-05

VIS: TEMP:

DIVER: Villarreal

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0902	NG	LS	NG		LS	
LB	1132	RNT	LB	RNT		LB	
BT	152 min TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Airlifting & cutting pipe

DIVER: Jack Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	12:13	NG	LS	NG		LS	
LB	13:59	RNT	LB	RNT		LB	
BT	106 min TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Downgraded pipe Cut out & Removed 6" pipe
Airlift Jammed up

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Woods IN Harbor & Canal Job 2600 PSI B.O.

JOB NO: 072 DATE: 8-5-05

VIS: TEMP:

DIVER: Villaneal

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0902	NG	LS	NG		LS	
LB	1132	RNT	LB	RNT		LB	
BT	152 min TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Airlifting & cutting pipe

DIVER: Jack Beaudoin

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	1213	NG	LS	NG		LS	
LB	13:59	RNT	LB	RNT		LB	
BT	106 min TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Down to cut pipe Cut out & Removed 6" pipe Airlift Jammed up

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	

813 / 814 / 815

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal

Plant:	Contact: Tom Schep	Date: 8-3-05
Location/Unit: In Harbor canal	Time JSA Completed: 07:18	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Removing pipes From area 7#	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer	
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05	Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/A [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR**

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noise equip

813 / 814 / 815

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E-05-072 Pipe Removal

Plant:	Contact: Tom Schaff	Date: 8-3-05
Location/Unit: In Harbo canal.	Time JSA Completed: 07:18.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name: Beaudoin	Job Description: Removing pipes From area I#	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:
Fire Extinguisher Available: yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:

[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/a [ ] Half Face Respirator: Facepiece Model #:

[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No IF NO, DO NOT USE RESPIRATOR

Hearing Protection: N/a

[X] Ear Plugs [ ] Ear Muffs [ ] Other: around noisy Equip

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/A [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground / Seawall	life Jack within 4' of Wall.
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Mat'l in Water	Clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind often (Duration)
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipe.	Carefull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet pump / Air Drill	Carefull with this Equip.
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.		
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Ladder. Trip Hazards.	3 point Contact w/ ladder. Don't Run

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05 08-04 08-5-05

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/a	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/a.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	uneven Ground / SeaWall	life Jack within 4' of Wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily Matl in Water	Clean Diver & Equip @ site
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Equip Exhaust	Check Wind often (Direction)
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Rigging & Removing Pipe.	Carefull when making lifts
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc. N/a		
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jet pump / Air Drill	Carefull with this Equip
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladder	3 point Contact w/ ladder
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards	Don't Run

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-3-05	08-04-05	08-5-05	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 6/27/2005

Parameter	Limit	6/27/2005 Sample Volume (liters)	6/27/2005 pg Raw Data	6/27/2005 ppb Calc. Data	6/27/2005 5-Day Average	6/28/2005 Sample Volume (liters)	6/28/2005 pg Raw Data	6/28/2005 ppb Calc. Data	6/28/2005 5-Day Average	6/29/2005 Sample Volume (liters)	6/29/2005 pg Raw Data	6/29/2005 ppb Calc. Data	6/29/2005 5-Day Average
PCB 8		961.3	35000	0.036	0.015	952.3	36000	0.038	0.021	994.8	82000	0.082	0.057
PCB 15		961.3	6700	0.007	0.055	952.3	8600	0.009	0.043	994.8	14000	0.014	0.010
PCB18		961.3	46000	0.048	0.042	952.3	18000	0.019	0.037	994.8	21000	0.021	0.044
PCB28		961.3	35000	0.036	0.041	952.3	34000	0.036	0.038	994.8	37000	0.037	0.038
PCB31		961.3	44000	0.046	0.010	952.3	34000	0.036	0.017	994.8	38000	0.038	0.041
PCB77		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB81		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB105		961.3	1600	0.002	0.001	952.3	1700	0.002	0.001	994.8	2000	0.002	0.002
PCB114		961.3	ND	0.001	0.003	952.3	ND	0.001	0.003	994.8	ND	0.001	0.001
PCB118		961.3	3400	0.004	0.001	952.3	3700	0.004	0.002	994.8	5000	0.005	0.004
PCB123		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB126		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB156		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB157		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB167		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB169		961.3	ND	0.001	0.001	952.3	ND	0.001	0.001	994.8	ND	0.001	0.001
PCB170		961.3	ND	0.001	0.002	952.3	ND	0.001	0.002	994.8	ND	0.001	0.001
PCB180		961.3	2100	0.002	0.001	952.3	1900	0.002	0.001	994.8	2400	0.002	0.002
PCB189		961.3	ND	0.001	0.000	952.3	ND	0.001	0.000	994.8	ND	0.001	0.001
Total	1000.0			0.187	0.000			0.000	0.037			0.000	0.037

Parameter	6/30/2005 Sample Volume (liters)	6/30/2005 pg Raw Data	6/30/2005 ppb Calc. Data	6/30/2005 5-Day Average	7/1/2005 Sample Volume (liters)	7/1/2005 pg Raw Data	7/1/2005 ppb Calc. Data	7/1/2005 5-Day Average	7/2/2005 Sample Volume (liters)	7/2/2005 pg Raw Data	7/2/2005 ppb Calc. Data	7/2/2005 5-Day Average	7/3/2005 Sample Volume (liters)	7/3/2005 pg Raw Data	7/3/2005 ppb Calc. Data	7/3/2005 5-Day Average
PCB 8	961.1	22000	0.023	0.053	983.2	8900	0.009	0.038	984.2	23000	0.023	0.035	1048.0	39000	0.037	0.035
PCB 15	961.1	6000	0.006	0.010	983.2	1800	0.002	0.008	984.2	6600	0.006	0.007	1048.0	8600	0.008	0.007
PCB18	961.1	16000	0.016	0.040	983.2	9300	0.009	0.022	984.2	18000	0.018	0.016	1048.0	29000	0.028	0.018
PCB28	961.1	21000	0.022	0.037	983.2	7600	0.008	0.028	984.2	20000	0.020	0.025	1048.0	27000	0.026	0.023
PCB31	961.1	24000	0.025	0.041	983.2	7600	0.008	0.030	984.2	21000	0.021	0.026	1048.0	35000	0.033	0.025
PCB77	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB81	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB105	961.1	1100	0.001	0.002	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB114	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB118	961.1	2600	0.003	0.004	983.2	ND	0.001	0.003	984.2	1600	0.002	0.003	1048.0	1700	0.002	0.002
PCB123	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB126	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB156	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB157	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB167	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB169	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB170	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB180	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
PCB189	961.1	ND	0.001	0.002	983.2	ND	0.001	0.002	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
Total	961.1	ND	0.001	0.001	983.2	ND	0.001	0.001	984.2	ND	0.001	0.001	1048.0	ND	0.000	0.001
			0.000	0.037			0.000	0.037			0.000	0.000			0.000	0.000

Week of 7/4/2005

Parameter	Limit	7/4/2005 Sample Volume (liters)	7/4/2005 pg Raw Data	7/4/2005 ppb Calc. Data	7/4/2005 5-Day Average	7/5/2005 Sample Volume (liters)	7/5/2005 pg Raw Data	7/5/2005 ppb Calc. Data	7/5/2005 5-Day Average	7/6/2005 Sample Volume (liters)	7/6/2005 pg Raw Data	7/6/2005 ppb Calc. Data	7/6/2005 5-Day Average
PCB 8		1027.0	40000	0.039	0.012	1009.8	11000	0.011	0.013	999.4	13000	0.013	0.025
PCB 15		1027.0	10000	0.010	0.016	1009.8	2600	0.003	0.013	999.4	2600	0.003	0.006
PCB18		1027.0	33000	0.032	0.022	1009.8	17000	0.017	0.021	999.4	18000	0.018	0.023
PCB28		1027.0	32000	0.031	0.024	1009.8	12000	0.012	0.021	999.4	11000	0.011	0.020
PCB31		1027.0	42000	0.041	0.009	1009.8	13000	0.013	0.011	999.4	11000	0.011	0.024
PCB77		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB81		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB105		1027.0	1300	0.001	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB114		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.000
PCB118		1027.0	2900	0.003	0.001	1009.8	1600	0.002	0.001	999.4	1300	0.001	0.002
PCB123		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB126		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB156		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB157		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB167		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB169		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB170		1027.0	ND	0.000	0.001	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
PCB180		1027.0	1700	0.002	0.001	1009.8	ND	0.000	0.001	999.4	ND	0.001	0.001
PCB189		1027.0	ND	0.000	0.000	1009.8	ND	0.000	0.000	999.4	ND	0.001	0.000
Total	1000.0			0.154	0.000			0.000	0.033			0.000	0.033

Parameter	7/7/2005 Sample Volume (liters)	7/7/2005 pg Raw Data	7/7/2005 ppb Calc. Data	7/7/2005 5-Day Average	7/8/2005 Sample Volume (liters)	7/8/2005 pg Raw Data	7/8/2005 ppb Calc. Data	7/8/2005 5-Day Average	7/9/2005 Sample Volume (liters)	7/9/2005 pg Raw Data	7/9/2005 ppb Calc. Data	7/9/2005 5-Day Average	7/10/2005 Sample Volume (liters)	7/10/2005 pg Raw Data	7/10/2005 ppb Calc. Data	7/10/2005 5-Day Average
PCB 8	1075.7	65000	0.060	0.032	1000.5	9400	0.009	0.027	No Sample		######	0.027	No Sample		######	0.027
PCB 15	1075.7	11000	0.010	0.007	1000.5	2400	0.002	0.006	No Sample		######	0.006	No Sample		######	0.005
PCB18	1075.7	97000	0.090	0.037	1000.5	14000	0.014	0.034	No Sample		######	0.034	No Sample		######	0.034
PCB28	1075.7	49000	0.046	0.025	1000.5	11000	0.011	0.022	No Sample		######	0.022	No Sample		######	0.022
PCB31	1075.7	57000	0.053	0.030	1000.5	10000	0.010	0.026	No Sample		######	0.026	No Sample		######	0.026
PCB77	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB81	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB105	1075.7	1200	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
PCB114	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB118	1075.7	2800	0.003	0.002	1000.5	1700	0.002	0.002	No Sample		######	0.002	No Sample		######	0.002
PCB123	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB126	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB156	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB157	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB167	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB169	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB170	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB180	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
PCB189	1075.7	1400	0.001	0.001	1000.5	ND	0.000	0.001	No Sample		######	0.001	No Sample		######	0.001
Total	1075.7	ND	0.000	0.000	1000.5	ND	0.000	0.000	No Sample		######	0.000	No Sample		######	0.000
			0.000	0.033			0.000	0.033			0.000	0.033			0.000	0.033

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	7/11/2005 pg Raw Data	7/11/2005 ppb Calc. Data	7/11/2005 5-Day Average	7/12/2005 Sample Volume (liters)	7/12/2005 pg Raw Data	7/12/2005 ppb Calc. Data	7/12/2005 5-Day Average	7/13/2005 Sample Volume (liters)	7/13/2005 pg Raw Data	7/13/2005 ppb Calc. Data	7/13/2005 5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	7/14/2005 pg Raw Data	7/14/2005 ppb Calc. Data	7/14/2005 5-Day Average	7/15/2005 Sample Volume (liters)	7/15/2005 pg Raw Data	7/15/2005 ppb Calc. Data	7/15/2005 5-Day Average	7/16/2005 Sample Volume (liters)	7/16/2005 pg Raw Data	7/16/2005 ppb Calc. Data	7/16/2005 5-Day Average	7/17/2005 Sample Volume (liters)	7/17/2005 pg Raw Data	7/17/2005 ppb Calc. Data	7/17/2005 5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	0	0.000	0.017	1020.5		0.000	0.005	964.2		0.000	0.003
PCB 15	979.1	1400	0.001	0.004	973.4		0.000	0.003	1020.5		0.000	0.001	964.2		0.000	0.001
PCB18	979.1	5800	0.006	0.028	973.4		0.000	0.025	1020.5		0.000	0.007	964.2		0.000	0.004
PCB28	979.1	5700	0.006	0.017	973.4		0.000	0.015	1020.5		0.000	0.006	964.2		0.000	0.003
PCB31	979.1	4700	0.005	0.016	973.4		0.000	0.016	1020.5		0.000	0.006	964.2		0.000	0.003
PCB77	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB81	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB105	979.1	ND	0.001	0.001	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB114	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB118	979.1	1400	0.001	0.002	973.4		0.000	0.002	1020.5		0.000	0.001	964.2		0.000	0.001
PCB123	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB126	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB156	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB157	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB167	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB169	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB170	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
PCB180	979.1	ND	0.001	0.000	973.4		0.000	0.001	1020.5		0.000	0.000	964.2		0.000	0.000
PCB189	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
Total	979.1	ND	0.001	0.000	973.4		0.000	0.000	1020.5		0.000	0.000	964.2		0.000	0.000
			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Parameter	Limit	Week of 6/27/2005 Sample Volume (liters)	ng Raw Data	6/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	6/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/1/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/2/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/3/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	961.3	20000	994.8	12000	12.063	14.695	961.1	9200	9.572	15.222	983.2	1700	1.729	12.404	984.2	6600	6.909	9.625	1048.0	400	0.382	6.131
Acenapthylene	1875.0	961.3	780	994.8	1400	1.407	0.988	961.1	540	0.562	0.957	983.2	550	0.559	0.895	984.2	710	0.721	0.881	1048.0	660	0.649	0.780
Anthracene	9376.0	961.3	500	994.8	ND	0.251	0.376	961.1	680	0.708	0.465	983.2	ND	0.254	0.466	984.2	ND	0.254	0.413	1048.0	ND	0.239	0.341
Benzo(a)anthracene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(b)flouranthene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(k)flouranthene	35.0	961.3	ND	994.8	670	0.674	0.341	961.1	ND	0.260	0.341	983.2	ND	0.254	0.342	984.2	ND	0.254	0.341	1048.0	ND	0.239	0.338
Benzo(ghi)perylene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(a)pyrene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Benzo(e)pyrene		961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Chrysene	355.0	961.3	ND	994.8	790	0.794	0.446	961.1	ND	0.260	0.448	983.2	ND	0.254	0.366	984.2	620	0.630	0.440	1048.0	ND	0.239	0.435
Dibenzo(a,h)anthracene	0.4	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.258	1048.0	ND	0.239	0.252
Flouranthene	1250.0	961.3	8000	994.8	6300	6.333	6.305	961.1	5200	5.410	6.567	983.2	980	0.978	5.615	984.2	2100	2.134	4.378	1048.0	2000	1.908	3.352
Flourene	1250.0	961.3	16000	994.8	12000	12.063	13.982	961.1	7100	7.387	13.694	983.2	2100	2.136	10.166	984.2	5900	5.995	8.036	1048.0	5600	5.344	6.585
Indene(1,2,3-cd)pyrene	4.0	961.3	ND	994.8	ND	0.251	0.257	961.1	ND	0.260	0.256	983.2	ND	0.254	0.258	984.2	ND	0.254	0.256	1048.0	ND	0.239	0.252
Napthalene	30.0	961.3	31000	994.8	59000	59.308	47.182	961.1	15000	15.607	41.264	983.2	14000	14.239	35.411	984.2	17000	17.273	32.416	1048.0	5900	5.630	22.411
Phenanthrene	9376.0	961.3	39000	994.8	31000	31.162	33.032	961.1	25000	26.012	34.030	983.2	5400	5.492	28.208	984.2	13000	13.209	22.736	1048.0	16000	15.267	18.228
Pyrene	938.0	961.3	4200	994.8	3800	3.820	3.406	961.1	2800	2.913	3.568	983.2	680	0.692	3.094	984.2	1500	1.524	2.525	1048.0	1400	1.336	2.057

Parameter	Limit	Week of 7/4/2005 Sample Volume (liters)	ng Raw Data	7/6/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/7/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/8/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/9/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/10/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1027.0	9300	999.4	1300	1.301	3.767	1075.7	13000	12.085	4.802	1000.5	980	0.980	4.922	No Sample		#VALUE!	4.922	No Sample		#VALUE!	4.922
Acenapthylene	1875.0	1027.0	780	999.4	ND	0.250	0.525	1075.7	2700	2.510	0.883	1000.5	ND	0.250	0.803	No Sample		#VALUE!	0.803	No Sample		#VALUE!	0.803
Anthracene	9376.0	1027.0	700	999.4	ND	0.250	0.334	1075.7	870	0.809	0.445	1000.5	ND	0.250	0.448	No Sample		#VALUE!	0.448	No Sample		#VALUE!	0.448
Benzo(a)anthracene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(b)flouranthene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	500	0.465	0.289	1000.5	ND	0.250	0.291	No Sample		#VALUE!	0.291	No Sample		#VALUE!	0.291
Benzo(k)flouranthene	35.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(ghi)perylene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(a)pyrene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Benzo(e)pyrene		1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Chrysene	355.0	1027.0	ND	999.4	ND	0.250	0.322	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Dibenzo(a,h)anthracene	0.4	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Flouranthene	1250.0	1027.0	3700	999.4	1100	1.101	2.086	1075.7	3100	2.882	2.235	1000.5	2200	2.199	2.294	No Sample		#VALUE!	2.294	No Sample		#VALUE!	2.294
Flourene	1250.0	1027.0	6900	999.4	2300	2.301	4.488	1075.7	18000	14.874	6.263	1000.5	1800	1.799	5.555	No Sample		#VALUE!	5.555	No Sample		#VALUE!	5.555
Indene(1,2,3-cd)pyrene	4.0	1027.0	ND	999.4	ND	0.250	0.247	1075.7	ND	0.232	0.242	1000.5	ND	0.250	0.245	No Sample		#VALUE!	0.245	No Sample		#VALUE!	0.245
Napthalene	30.0	1027.0	12000	999.4	17000	17.010	12.280	1075.7	40000	37.185	16.263	1000.5	11000	10.995	17.336	No Sample		#VALUE!	17.336	No Sample		#VALUE!	17.336
Phenanthrene	9376.0	1027.0	23000	999.4	4600	4.603	12.541	1075.7	21000	19.522	13.803	1000.5	6300	6.297	12.009	No Sample		#VALUE!	12.009	No Sample		#VALUE!	12.009
Pyrene	938.0	1027.0	2000	999.4	750	0.750	1.329	1075.7	2600	2.417	1.508	1000.5	1600	1.599	1.561	No Sample		#VALUE!	1.561	No Sample		#VALUE!	1.561

Parameter	Limit	Week of 7/11/2005 Sample Volume (liters)	ng Raw Data	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		990.7		0.000	3.111	979.1		0.000	2.873	973.4		0.000	2.613	1020.5		0.000	0.196	964.2		0.000	0.000
Acenapthylene	1875.0	No Sample		990.7		0.000	0.652	979.1		0.000	0.602	973.4		0.000	0.552	1020.5		0.000	0.050	964.2		0.000	0.000
Anthracene	9376.0	No Sample		990.7		0.000	0.311	979.1		0.000	0.262	973.4		0.000	0.212	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)anthracene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(b)flouranthene	4.0	No Sample		990.7		0.000	0.242	979.1		0.000	0.193	973.4		0.000	0.143	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(k)flouranthene	35.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(ghi)perylene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(a)pyrene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Benzo(e)pyrene		No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Chrysene	355.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Dibenzo(a,h)anthracene	0.4	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Flouranthene	1250.0	No Sample		990.7		0.000	1.573	979.1		0.000	1.236	973.4		0.000	1.016	1020.5		0.000	0.440	964.2		0.000	0.000
Flourene	1250.0	No Sample		990.7		0.000	4.211	979.1		0.000	3.795	973.4		0.000	3.335	1020.5		0.000	0.360	964.2		0.000	0.000
Indene(1,2,3-cd)pyrene	4.0	No Sample		990.7		0.000	0.196	979.1		0.000	0.146	973.4		0.000	0.096	1020.5		0.000	0.050	964.2		0.000	0.000
Napthalene	30.0	No Sample		990.7		0.000	14.999	979.1		0.000	13.038	973.4		0.000	9.636	1020.5		0.000	2.199	964.2		0.000	0.000
Phenanthrene	9376.0	No Sample		990.7		0.000	7.530	979.1		0.000	6.084	973.4		0.000	5.164	1020.5		0.000	1.259	964.2		0.000	0.000
Pyrene	938.0	No Sample		990.7		0.000	1.171	979.1		0.000	0.953	973.4		0.000	0.803	1020.5		0.000	0.320	964.2		0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108		0.000	0.064		0.000	0.064		0.000	0.050		0.000	0.023	0.710	0.222	0.044	0.860	0.269	0.098
Ethyl Benzene	3565.0	0.054	0.012	0.019		0.000	0.009		0.000	0.009		0.000	0.007		0.000	0.004	0.160	0.037	0.007	0.180	0.041	0.016
Toluene	9065.0	0.320	0.085	0.137		0.000	0.073		0.000	0.073		0.000	0.057		0.000	0.031	1.100	0.292	0.058	1.200	0.318	0.122
Xylene	62510.0	0.151	0.035	0.065		0.000	0.033		0.000	0.033		0.000	0.024		0.000	0.011	0.590	0.136	0.027	0.710	0.164	0.060

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.232	0.510	0.160	0.172	0.340	0.106	0.172	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.044	0.150	0.035	0.029	0.087	0.020	0.029	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.292	0.910	0.242	0.215	0.540	0.143	0.215	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.172	0.510	0.117	0.109	0.370	0.085	0.109	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 263

DATE 08 Aug 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 70 °F, Max 91 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued excavation and cutting of pipes in the coffer dam Work was hindered by the inflow of sand fromthe south. The sediment level due south of the coffer damhas dropped seven feet. This is believed to be due to in flow into the coffer dam Griffin started the dewatering sytemat about 06:00 am EQ excavated the tie back area beginning at about 08:00 am Tie rods were found to connect to a 12 inch wide timber. They existed at about 5 foot centers. This work was supervised by John Breslin of USACE Work was discontinued at his direction.
Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, one operator from Griffin, and seven representatives of Thatcher (including the four man dive team).

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
John Breslin oversaw the tie back investigation and gave instructions on how the excavation should proceeded. This work was discontiued at his direction.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 263

DATE 08 Aug 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EOM	SAFETY ENGINEER - ON SITE	1.0	8.0
EOM	SUPER - JOB	1.0	8.0
EOM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	1.0	8.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	4.0	32.0
	Total	13.0	104.0

Total hours worked to date: 5,224.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CR02136	Small Excavator	0.0	8.0
	Total	0.0	16.0

Total operating hours to date: 1,024.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/15/5		8-16-05

IHCDF Obstruction Removal Particulate Monitoring

pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:19:35 08-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.055 mg/m³
Time at maximum: 10:19:53 Aug 08
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 10:20:05 Aug 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Aug	10:24:35	0.004

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:30:52 08-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.089 mg/m³
Time at maximum: 11:34:25 Aug 08
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:30:52 Aug 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Aug	11:35:52	0.007

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:20:25 08-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:20:25 Aug 08
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:20:25 Aug 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Aug	13:25:25	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:23:10 08-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.020 mg/m³
Time at maximum: 15:30:34 Aug 08
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:23:10 Aug 08
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	8-Aug	15:28:10	0.001

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13196

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) Ben Cotany / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
Vac 080805	8-8-05	21hr	Summa Canister	6L	1	X

Relinquished by: (Signature) — Date: 8-9-05 — Time: 9:15 — Received by: (Signature) — Date: 8/9/05 — Time: 9:15

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature) — Date: — Time:

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature) — Date: — Time:

Ship To: STL Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 8/17/05

Report To: Jackie Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13197

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): Ben Lafferty / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi-Vol 080805	8-8-05	24hr	Filter	1,011.5 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ben Lafferty	8-9-05	0??		8/9/05	915
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up On Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): ~~7-DAY~~ 8/17/05

Report To: Jackie Doan

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING DATA SHEET

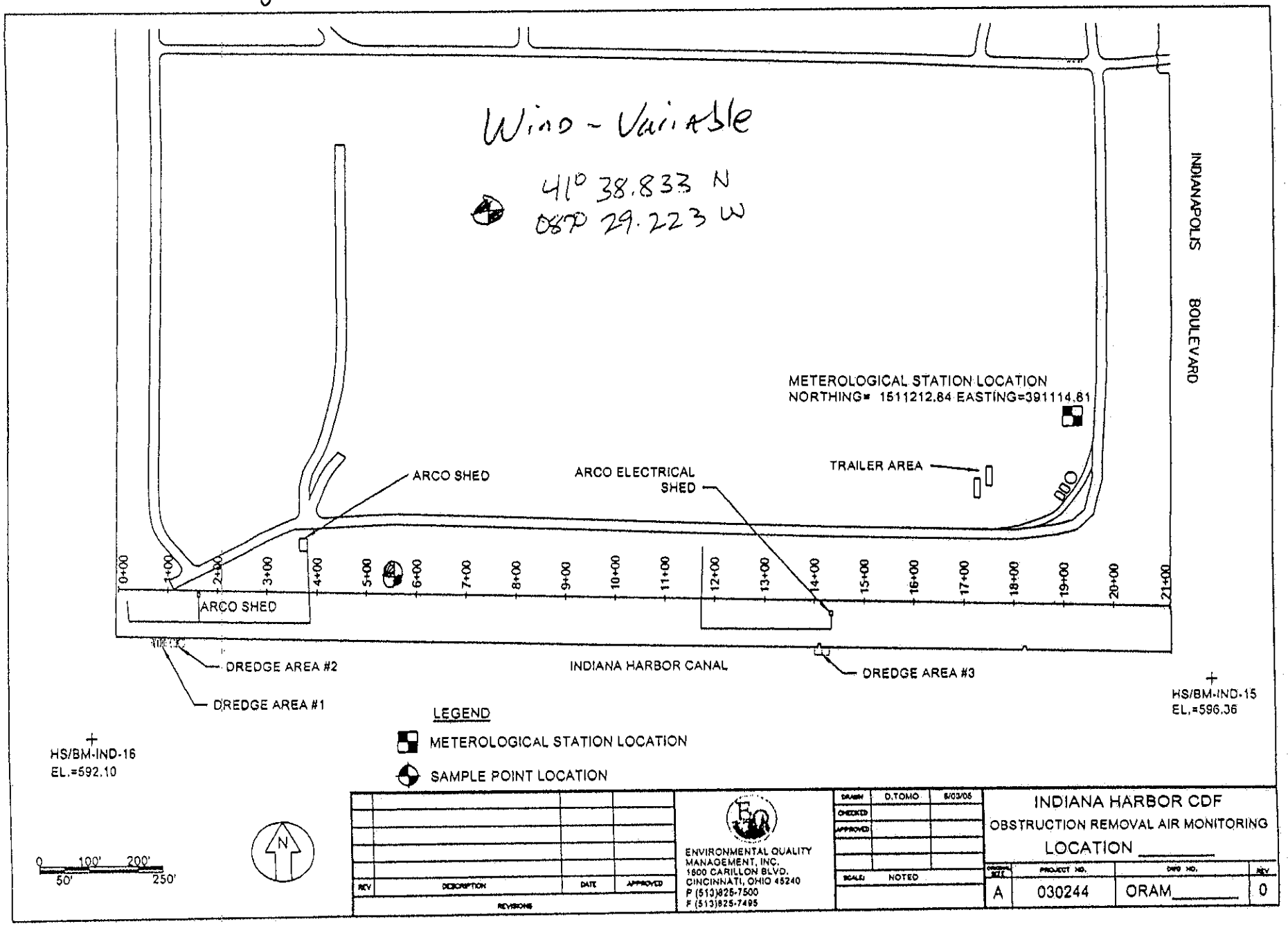
Site: Indiana Harbor
PN 030244
Date: 8/8/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	Ucr080805					07:00	07:15	24	6
TO-13	Sair1/61080805					07:00	07:15	24	1,011.5
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible] Calculations by: [illegible] Checked by:

Activities performed on site: Dive, Cut pipe; Tie back exploration.
Weather conditions: Sunny, Hot, Humid, Variable winds
Analytical lab: CR COC Number: 13196, 13197

8-8-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-8-05 0802	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, Hot, Humid, Variable Wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-8-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Partly Cloudy 70°F	70°F	68°F	94%	7.0 miles	30.05	calm
5:45 AM	Mostly Cloudy 70°F	70°F	68°F	94%	7.0 miles	30.06 ↑	calm
Sunrise at 5:51 AM							
6:50 AM	Mostly Cloudy 72°F	72°F	68°F	88%	7.0 miles	30.06 →	calm
7:45 AM	Haze 75°F	78°F	72°F	89%	6.0 miles	30.06 →	calm
8:50 AM	Haze 81°F	86°F	73°F	79%	5.0 miles	30.06 →	calm
9:50 AM	Mostly Cloudy 82°F	86°F	68°F	62%	7.0 miles	30.07 ↑	calm
11:50 AM	Mostly Cloudy 86°F	91°F	72°F	62%	10.0 miles	30.07 →	Variable 7mph
12:49 PM	Mostly Cloudy 88°F	95°F	73°F	62%	10.0 miles	30.06 ↓	From NE 12mph
1:48 PM	Mostly Cloudy 89°F	95°F	73°F	62%	10.0 miles	30.04 ↓	From NE 12mph
2:50 PM	Partly Cloudy 91°F	100°F	73°F	55%	7.0 miles	30.02 ↓	From NE 9mph
3:50 PM	Partly Cloudy 88°F	95°F	73°F	62%	7.0 miles	30.01 ↓	From NE 9mph
4:50	Partly Cloudy	95°F	73°F	62%	7.0 miles	29.99 ↓	From NE

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PM	88°F						12mph
5:50 PM	Partly Cloudy 88°F	95°F	73°F	62%	7.0 miles	29.98 ↓	From NE 8mph
6:50 PM	Haze 88°F	95°F	73°F	62%	6.0 miles	29.97 ↓	Variable 5mph
7:50 PM	Partly Cloudy 84°F	87°F	68°F	58%	10.0 miles	29.98 ↑	From WSW 8mph
Sunset at 7:59 PM							
8:50 PM	Partly Cloudy 81°F	84°F	70°F	70%	Unlimited	30.01 ↑	From SSE 9mph
9:50 PM	Clear 81°F	85°F	72°F	74%	7.0 miles	30.00 ↓	Variable 7mph

Avg. 82° 30.03

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4 PM	Afternoon Outlook

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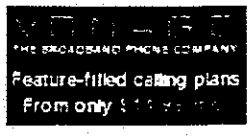

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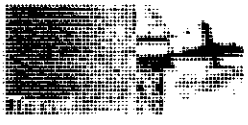

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 131.4

Project No.	Project Name	
030244	Tolleson Harbor Distribution Removal	
Samplers/Affiliation: (Print Name and Sign)		Lab P.O. No:
[illegible]	IEQM	9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-15
Voc 050605	8-6-05	24hr	Summa Can	6L	1	X
Voc 050705	8-7-05	24hr	Summa Can	6L	1	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	8-8-05	8:16	[illegible]	[illegible]	[illegible]
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7 Day 8/16/05

Report To: Tom Dean

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13195

Project No.: 030244

Project Name: Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign): [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO-13/8270	TESTS: TO-13/1668
Semi-VOI 080605	8-6-05	24hr	Filter	1,033.1 L	2	X	X
Semi-VOI 080705	8-7-05	24hr	Filter	1,005.4 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	8-8-05	0956	[illegible]	8-8-[illegible]	8:50
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL- Pick up on Site

Airbill Number:

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/16/05

Report To: Jackie Dorn

Chain of Custody Seal Numbers:

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: Indiana Harbor
PN 030244
Date: 8/6/05
Page: 1 of 1

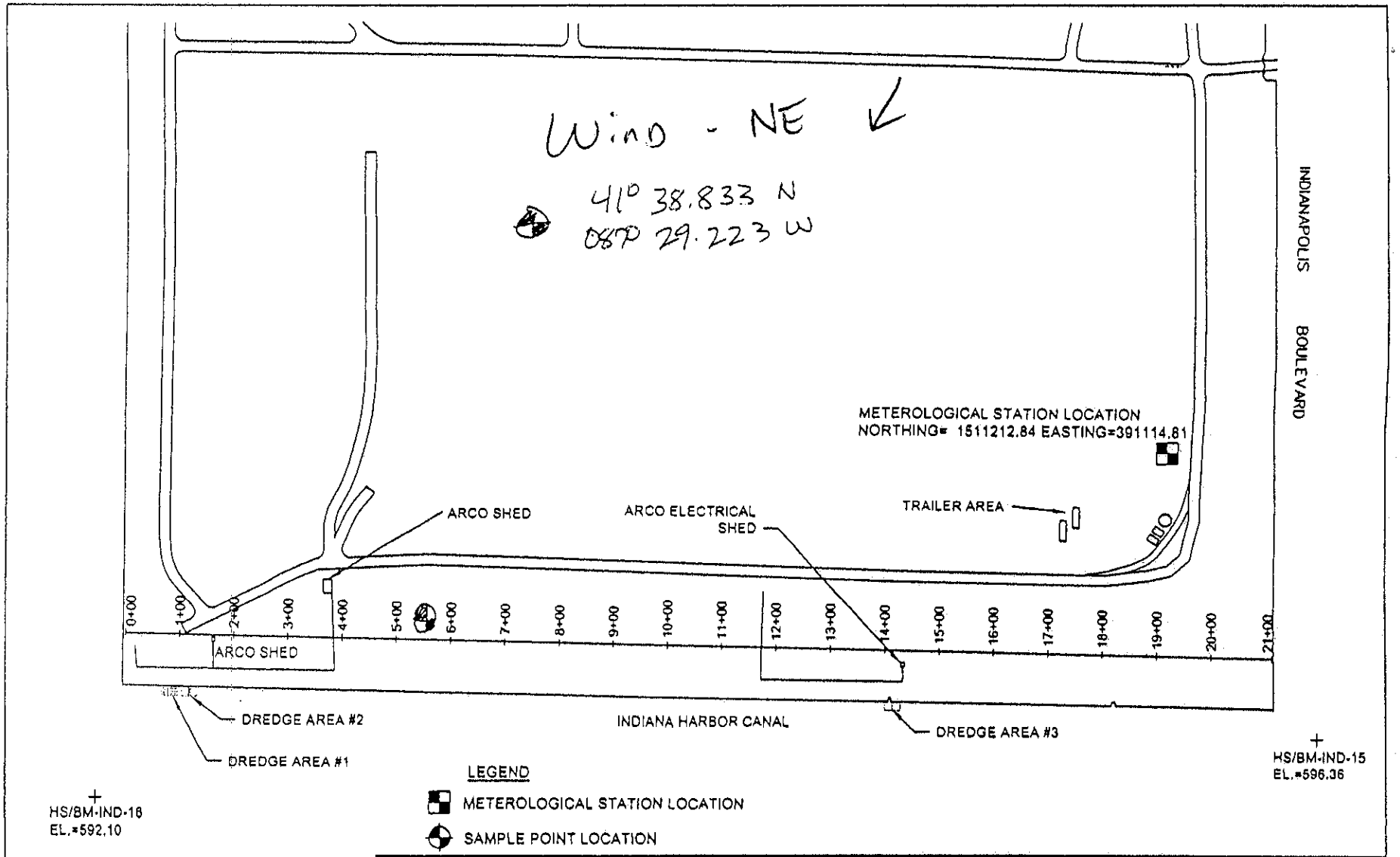
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm			Time		Duration, min hr.	Air Volume, liters
			Start	Stop	Avg.	Start	Stop		
TO-15	VOC080605					07:00	07:00	24 hr	6
TO-15	Semi VOC080605					07:00	07:00	24 hr	1,033.1
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: NONE
Weather conditions: SUNNY, HOT, NE WIND
Analytical lab: STL
COC Number: 13194, 13195

8-6-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

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CINCINNATI, OHIO 45240
P (513)825-7500
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DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE: NOTED		

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DRAWING REV.	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM_____	0

8-6-05

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:45 AM	Partly Cloudy 57°F	57°F	55°F	94%	5.0 miles	30.17	calm
5:45 AM	Partly Cloudy 57°F	57°F	55°F	94%	Unlimited	30.18 ↑	calm
Sunrise at 5:49 AM							
6:50 AM	Partly Cloudy 61°F	61°F	59°F	94%	Unlimited	30.19 ↑	calm
7:50 AM	Partly Cloudy 70°F	70°F	64°F	83%	Unlimited	30.19 →	calm
8:50 AM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	30.19 →	From NNE 7mph
9:49 AM	Partly Cloudy 79°F	80°F	64°F	61%	Unlimited	30.19 →	From NNE 7mph
10:53 AM	Partly Cloudy 79°F	79°F	61°F	54%	Unlimited	30.19 →	From N 12mph
11:45 AM	Partly Cloudy 81°F	82°F	63°F	54%	Unlimited	30.18 ↓	From N 9mph
12:45 PM	Partly Cloudy 81°F	82°F	63°F	54%	Unlimited	30.16 ↓	From N 9mph
1:45 PM	Partly Cloudy 81°F	81°F	59°F	48%	Unlimited	30.15 ↓	From NNE 9mph
2:45 PM	Partly Cloudy 81°F	81°F	61°F	51%	Unlimited	30.13 ↓	From NNE 9mph
	Partly						

Nic

High 78°F

Mostly Sunny

Low 52°F

Wint Mi

Passenger friendly. Dual climc

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3:50 PM	Cloudy 81°F	81°F	61°F	51%	Unlimited	30.11 ↓	From NNE 9mph
4:45 PM	Partly Cloudy 81°F	82°F	63°F	54%	Unlimited	30.10 ↓	From NNE 9mph
5:45 PM	Partly Cloudy 81°F	82°F	63°F	54%	Unlimited	30.08 ↓	From NE 12mph
6:45 PM	Sunny 79°F	80°F	63°F	57%	Unlimited	30.07 ↓	From NE 9mph
7:45 PM	Sunny 75°F	76°F	64°F	69%	Unlimited	30.07 →	From E 9mph
Sunset at 8:01 PM							
8:50 PM	Clear 70°F	70°F	63°F	78%	Unlimited	30.08 ↑	From NNE 7mph
9:47 PM	Clear 68°F	68°F	64°F	88%	Unlimited	30.08 →	From NNE 7mph

Avg 75° 30.13

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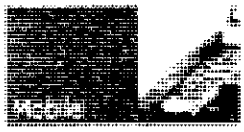

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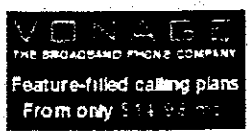

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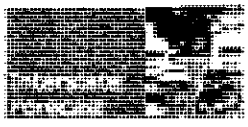
Driving Weather



Check curr conditions

Summer Adventure

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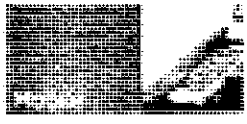

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Site: Indiana Harbor
PN 030244
Date: 8/7/05
Page: 1 of 1

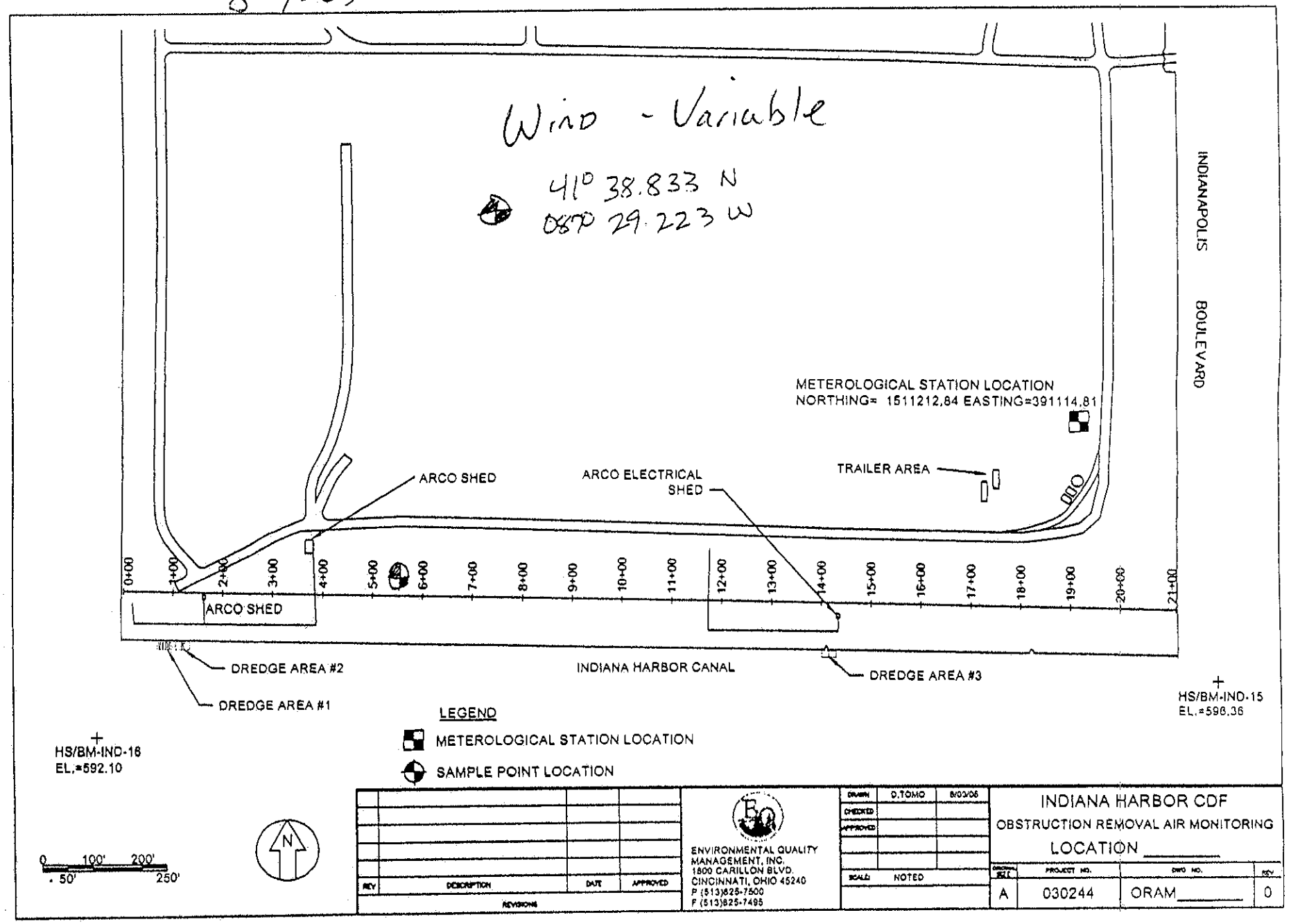
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	Va 080705					07:00	07:00	24hr	6
TO-13	Sami-Va	080705				07:00	07:00	24hr	1,005.4
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: NONE
Weather conditions: SUNNY, HOT, VARIABLE WIND
Analytical lab: STL
COC Number: EQ 13194, 13195

8-7-05



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DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

DIRECTORY SYM.	PROJECT NO.	DWG NO.	REV
A	030244	ORAM _____	0

8-7-05

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Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Clear 61°F	61°F	59°F	94%	10.0 miles	30.08	calm
5:50 AM	Mostly Cloudy 61°F	61°F	59°F	94%	Unlimited	30.09 ↑	calm
Sunrise at 5:50 AM							
6:50 AM	Partly Cloudy 64°F	64°F	63°F	94%	Unlimited	30.10 ↑	calm
7:50 AM	Partly Cloudy 72°F	72°F	66°F	83%	Unlimited	30.11 ↑	calm
8:50 AM	Sunny 79°F	80°F	64°F	61%	Unlimited	30.11 →	calm
9:50 AM	Sunny 81°F	82°F	63°F	54%	Unlimited	30.11 →	calm
10:50 AM	Partly Cloudy 82°F	84°F	63°F	51%	Unlimited	30.12 ↑	calm
11:50 AM	Partly Cloudy 84°F	85°F	63°F	48%	Unlimited	30.11 ↓	Variable 6mph
12:50 PM	Partly Cloudy 84°F	85°F	63°F	48%	Unlimited	30.09 ↓	From NNE 12mph
1:50 PM	Partly Cloudy 84°F	85°F	61°F	45%	Unlimited	30.09 →	From N 9mph
2:45 PM	Partly Cloudy 86°F	87°F	63°F	45%	Unlimited	30.07 ↓	From ENE 14mph
3:45 PM	Partly Cloudy	86°F	64°F	51%	Unlimited	30.08 ↑	From ENE 14mph

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Now you'

From To

Depart Return

Aug 15 Aug

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- Hot weather lawn & garden car
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		84°F						
4:50 PM	Partly Cloudy	84°F	86°F	64°F	51%	Unlimited	30.05 ↓	From E 14mph
5:50 PM	Partly Cloudy	84°F	87°F	66°F	55%	Unlimited	30.04 ↓	From E 9mph
6:55 PM	Partly Cloudy	82°F	86°F	68°F	62%	Unlimited	30.04 →	From ENE 9mph
7:48 PM	Partly Cloudy	81°F	83°F	68°F	65%	Unlimited	30.04 →	From ENE 9mph
		Sunset at 8:00 PM						
8:45 PM	N/A	77°F	80°F	72°F	83%	Unlimited	30.05 ↑	From ENE 7mph
9:45 PM	Clear	79°F	81°F	68°F	69%	Unlimited	30.06 ↑	Variable 6mph

Avg. 78° 30.08

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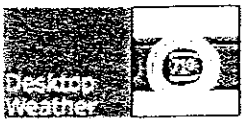

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CHICAGO UNDERWATER

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REPETITIVE DIVING LOG

PROJECT: Thatcher Emt
In Harbor & Canal pipe Removal

JOB NO: 072 DATE: 8-8-05
VIS: TEMP:

BO 2400 psi
Standby BO 3200 psi
Rack BO 3100 psi

DIVER: Tattini

DIVE 1			DIVE 2			DIVE 3	
Depth	28	SI	Depth	SI		Depth	
LS	0855	NG	LS	NG		LS	
LB	1203	RNT	LB	RNT		LB	
BT	181 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diving Jetting & Air lifting, Cutting Piping out

BO. 2400 psi. !

DIVER: Stawitz.

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS	1242	NG	LS	NG		LS	
LB	1534	RNT	LB	RNT		LB	
BT	172 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Continue Cutting pipe

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng In Harbor & Canal pipe Removal

JOB NO: 072 DATE: 8-8-05

VIS: TEMP:

BO 2400 psi

DIVER: Lattini

Standby BO 3200 psi

Rack BO 3100 psi

DIVE 1			DIVE 2			DIVE 3	
Depth	28	SI	Depth	SI		Depth	
LS	0855	NG	LS	NG		LS	
LB	1203	RNT	LB	RNT		LB	
BT	181 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diving Jetting & Air lifting, Cutting Piping out.

BO. 2400 psi. !

DIVER: Stawitz

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS	1242	NG	LS	NG		LS	
LB	1534	RNT	LB	RNT		LB	
BT	172 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Continue Cutting pipe

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	

8-8-05
mon

Onyx Special Services, Inc — MARINE SERVICES — Job Safety Analysis

140159E.05.072 In Harbor & Canal Pipe Removal

Plant:	Contact: Tom Schar	Date: 8-8-05
Location/Unit: In Harbor Canal	Time JSA Completed: 0730.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name:	Job Description: Cutting out pipe crossing / Air lifting & Jetting	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: E Q Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:
[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/a [ ] Half Face Respirator: Facepiece Model #: _____
[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:
[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR** N/a

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: if working around noisy equip.

mon.

Onyx Special Services, Inc **MARINE SERVICES** **Job Safety Analysis**

140159E.05.072 In Harbor & Canal Pipe Removal

Plant:	Contact: Tom Schan	Date: 5-8-05
Location/Unit: In Harbor Canal	Time JSA Completed: 0730.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name:	Job Description: Cutting out pipe crossing / Air lifting & Jetting	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of South.	Primary Evacuation Point: Thatcher Trailer	
Secondary Evacuation Point: EQ Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05	Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):

[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:

[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):

[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):

[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):

[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit

[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:

[ ] Disposal Dust Respirator: Facepiece Model #: N/a [ ] Half Face Respirator: Facepiece Model #: _____

[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:

[ ] Supplied Air Respirator**Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR** N/a

Hearing Protection:

[X] Ear Plugs [ ] Ear Muffs [ ] Other: If working around noisy Equip.

men.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/A	[ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Air lift / Jetting.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Piping & uneven Ground / Sea Wall	Life Jacket within 4' of wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean up of Diver near Open pit
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Watch For Wind Changes. Exhaust	Watch Compressors Intake
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane use • Carefull of Rigging	Watch For Over Head loads.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	Jetting in water / Air lifting	Diver will Mind location of Hose.
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.		Don't Jet into Body
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladders.	3 point Contact When Climbing
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards.	Don't Run.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

3-8-05

Jack Bassauter			
Jerry [illegible]			
[illegible]			
[illegible]			

'men.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	N/A [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	N/A [ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Air lift / Jetting.
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Piping & uneven Ground / Sea Wall	Life Jacket within 4' of wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean up of Diver near Open Pit
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Watch For Wind Changes. Exhaust	Watch Compressors Intake
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane use • Carefull of Rigging	Watch For Over Head loads.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	Jetting in water / Air lifting	Diver will mind location of Hose
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.		Don't Jet into Body
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladders.	3 point Contact When Climbing
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards.	Don't Run.

<u>All Incidents Must Be Reported Immediately</u> to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-8-09 Jack Bassander			
Jimmy Dill			

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.076	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.085	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.106	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 7/11/2005 7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	18000	0.018	0.021	1020.5	22000	0.022	0.013	964.2	36000	0.037	0.019
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.006	964.2	10000	0.010	0.006
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4	12000	0.012	0.027	1020.5	61000	0.060	0.019	964.2	41000	0.043	0.025
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4	14000	0.014	0.018	1020.5	45000	0.044	0.017	964.2	43000	0.045	0.024
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4	13000	0.013	0.018	1020.5	69000	0.068	0.021	964.2	69000	0.061	0.031
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1700	0.002	0.001	964.2	1400	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	3200	0.003	0.002	979.1	1400	0.001	0.002	973.4	2000	0.002	0.002	1020.5	4100	0.004	0.002	964.2	3100	0.003	0.003
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1800	0.002	0.001	964.2	1500	0.002	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/18/2005 7/18/2005				7/19/2005				7/20/2005				7/21/2005				7/22/2005				7/23/2005				7/24/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020	1024.4	38000	0.037	0.033	989.0	19000	0.019	0.033	979.5	19000	0.019	0.029	1028.7	51000	0.050	0.033	1024.9	35000	0.034	0.032
PCB 15		1003.9	13000	0.013	0.025	1041.4	14000	0.013	0.026	1024.4	10000	0.010	0.012	989.0	5000	0.005	0.010	979.5	4600	0.005	0.009	1028.7	14000	0.014	0.009	1024.9	9500	0.009	0.008
PCB18		1003.9	39000	0.039	0.030	1041.4	41000	0.039	0.036	1024.4	73000	0.071	0.048	989.0	28000	0.028	0.044	979.5	42000	0.043	0.044	1028.7	100000	0.097	0.056	1024.9	80000	0.078	0.064
PCB28		1003.9	49000	0.049	0.039	1041.4	68000	0.066	0.049	1024.4	46000	0.045	0.048	989.0	22000	0.022	0.043	979.5	24000	0.025	0.039	1028.7	61000	0.060	0.039	1024.9	64000	0.063	0.039
PCB31		1003.9	77000	0.077	0.016	1041.4	71000	0.068	0.029	1024.4	61000	0.060	0.067	989.0	24000	0.024	0.058	979.5	27000	0.028	0.051	1028.7	77000	0.075	0.051	1024.9	71000	0.069	0.061
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB105		1003.9	1500	0.001	0.001	1041.4	2100	0.002	0.001	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.002	979.5	ND	0.001	0.001	1028.7	1600	0.002	0.001	1024.9	2900	0.003	0.002
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB118		1003.9	3300	0.003	0.001	1041.4	4800	0.005	0.002	1024.4	3300	0.003	0.004	989.0	3100	0.003	0.003	979.5	2200	0.002	0.003	1028.7	3600	0.003	0.003	1024.9	6000	0.006	0.004
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.001	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001	1024.9	3300	0.003	0.002
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/25/2005 7/25/2005				7/26/2005				7/27/2005				7/28/2005				7/29/2005				7/30/2005				7/31/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1031.9	57000	0.055	0.018	967.7	9000	0.009	0.018	1038.6	13000	0.013	0.032	989.3	28000	0.028	0.028		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1031.9	13000	0.013	0.052	967.7	2200	0.002	0.047	1038.5	2300	0.002	0.008	989.3	6000	0.006	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.018	0.045	1038.5	15000	0.014	0.058	989.3	45000	0.045	0.047	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049	1038.5	9900	0.010	0.037	989.3	28000	0.028	0.032	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1031.9	71000	0.069	0.014	967.7	16000	0.016	0.017	1038.5	11000	0.011	0.048	989.3	34000	0.034	0.040	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002	1038.5	1200	0.001	0.003	989.3	2200	0.002	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.6	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.6	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.6	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.6	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001	1038.6	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.6	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.291	0.000			0.000	0.058			0.000	0.058			0.000	0.058			0.000	0.058			0.000	0.000			0.000	0.000

AIRBORNE MONITORING RESULTS

Semi Volatiles

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		######	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		######	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		######	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		######	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Chrysene	355.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Flouranthene	1250.0	No Sample		#VALUE!	2.294	No Sample		######	2.294	990.7	1200	1.211	1.815
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		######	5.555	990.7	2300	2.322	4.875
Indene(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Napthalene	30.0	No Sample		#VALUE!	17.336	No Sample		######	17.336	990.7	5900	5.958	18.190
Phenanthrene	9376.0	No Sample		#VALUE!	12.009	No Sample		######	12.009	990.7	6700	5.754	8.681
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		######	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-D Aver
Acenapthene	979.1	1400	1.430	3.502	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.826	984.2	8000	8.297	4
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.705	1020.5	940	0.921	0.387	984.2	1000	1.037	0
Anthracene	979.1	ND	0.255	0.363	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	984.2	700	0.726	0
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Benzo(b)flouranthene	979.1	ND	0.255	0.295	973.4	ND	0.257	0.298	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	0
Flouranthene	979.1	990	1.011	1.661	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.878	984.2	4100	4.252	
Flourene	979.1	1800	1.838	4.627	973.4	3100	3.185	4.804	1020.5	10000	9.799	3.769	984.2	9200	9.542	
Indene(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	984.2	ND	0.259	
Napthalene	979.1	4200	4.290	15.087	973.4	5600	5.753	12.835	1020.5	9000	8.819	7.162	984.2	6900	7.156	
Phenanthrene	979.1	4200	4.290	8.093	973.4	8000	8.164	8.405	1020.5	24000	23.518	9.204	984.2	21000	21.760	1
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2800	2.548	1.340	984.2	2800	2.904	

Week of 07/18/05

Parameter	Limit	7/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	5.003	1041.4	5600	5.377	3.398	1024.4	4900	4.783	6.860
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.673	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	990	0.990	0.573	1041.4	820	0.787	0.679	1024.4	710	0.693	0.767
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	355.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.607	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.376	1024.4	5800	5.662	8.871
Indene(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.996	7.803	1041.4	6800	6.530	8.051	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.687	1024.4	3100	3.026	3.086

Parameter	7/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5- Av
Acenapthene	989.0	1900	1.921	5.736	979.5	7600	7.963	5.669	1028.7	8100	7.874	5.584	1024.9	8800	8.585	
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.389	1024.9	ND	0.244	
Anthracene	989.0	ND	0.253	0.690	979.5	ND	0.255	0.596	1028.7	680	0.661	0.530	1024.9	6900	6.684	
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Dibenzo(a,h)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Flouranthene	989.0	2400	2.427	3.840	979.5	1600	1.633	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	
Flourene	989.0	3300	3.337	7.578	979.5	7500	7.657	7.201	1028.7	7900	7.680	6.538	1024.9	10000	9.757	
Indene(1,2,3-cd)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	
Napthalene	989.0	5400	5.460	7.146	979.5	16000	16.335	6.982	1028.7	12000	11.665	8.916	1024.9	18000	17.563	
Phenanthrene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.358	19.445	1024.9	31000	30.247	2
Pyrene	989.0	1600	1.618	2.880	979.5	1600	1.633	2.626	1028.7	3000	2.916	2.649	1024.9	4400	4.293	

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1031.9	6900	6.687	6.006	967.7	2900	2.997	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.555	1038.5	2100	2.022	0.909
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.209
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	355.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.769	967.7	1900	1.963	3.677	1038.5	1100	1.059	3.502
Flourene	1250.0	1031.9	9200	8.916	7.469	967.7	4200	4.340	7.670	1038.5	8300	8.066	7.352
Indene(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	16000	15.505	13.306	967.7	10000	10.334	14.280	1038.5	36000	34.695	17.946
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.884	1038.5	9400	9.052	19.631
Pyrene	938.0	1031.9	3800	3.683	2.829	967.7	1500	1.550	2.815	1038.5	1000	0.963	2.681

Parameter	7/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5 Av
Acenapthene	989.3	9700	9.805	6.886			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(a)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(b)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(k)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(ghi)perylene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(a)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Benzo(e)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Chrysene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Dibenzo(a,h)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Flouranthene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Flourene	989.3	10000	10.108	7.837	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Indene(1,2,3-cd)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Napthalene	989.3	30000	30.324	21.678	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Phenanthrene	989.3	21000	21.227	19.406	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#
Pyrene	989.3	2000	2.022	2.502	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 264

DATE 09 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Mn 64 °F, Max 93 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher continued excavation and cutting of pipes in the coffer dam. Work was hindered by the inflow of sand from the south and was discontinued until a solution to this problem is found and agreed upon.
Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics, one operator from Griffin, and seven representatives of Thatcher (including the four man dive team).

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 264

DATE 09 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EGM	SAFETY ENGINEER - ON SITE	1.0	8.0
EGM	SUPER - JOB	1.0	8.0
EGM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	1.0	8.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	4.0	32.0
	Total	13.0	104.0

Total hours worked to date: 5,328.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CRC2136	Small Excavator	0.0	8.0
	Total	0.0	16.0

Total operating hours to date: 1,040.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/15/5		8-16-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:25:48 09-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.005 mg/m³
Time at maximum: 09:26:17 Aug 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:25:48 Aug 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Aug	09:30:48	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:22:18 09-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:22:18 Aug 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:22:18 Aug 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Aug	11:27:18	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:40:26 09-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:40:26 Aug 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:40:26 Aug 09
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Aug	13:45:26	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:18:49 09-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.094 mg/m³
Time at maximum: 15:23:37 Aug 09
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:18:49 Aug 09
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	9-Aug	15:23:49	0.005

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13198

Project No.	Project Name
030244	Indiana Harbor Obstruction Removal

Samplers/Affiliation: (Print Name and Sign) [illegible] / EQM

Lab P.O. No: 9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15
Vol 080905	8-9-05	23.5hr	Summa Canister	6L	1	X

Relinquished by: (Signature) [illegible] Date 8-9-05 Time 9:00 Received by: (Signature) [illegible] Date 8/11/05 Time 0930

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements: Turn Around Time (EXACT DUE DATE): 7 Days 8/18/05

Report To: Jackie Dean

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 1319

Project No.	Project Name	
030244	Indiana Harbor Obstruction Removal	
Samplers/Affiliation: (Print Name and Sign)		Lab P.O. No:
[illegible] / EQM		9132

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-13/8270	TO-13/1668
Semi-Vol 080905	8-9-05	23.54	Filter	977.4 L	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	8-10-05	930	[illegible]	8-10-05	930
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To: STL - Pick up on Site

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE): 7-DAY 8/18/05

Report To: Jackie Donn

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-9-05 0911	PDR	Ben Letany	Zero Calibration	"Cal OK"	Sunny, Hot, Humid

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

Site: Indiana Harbor
PN 030244
Date: 8/9/05
Page: 1 of 1

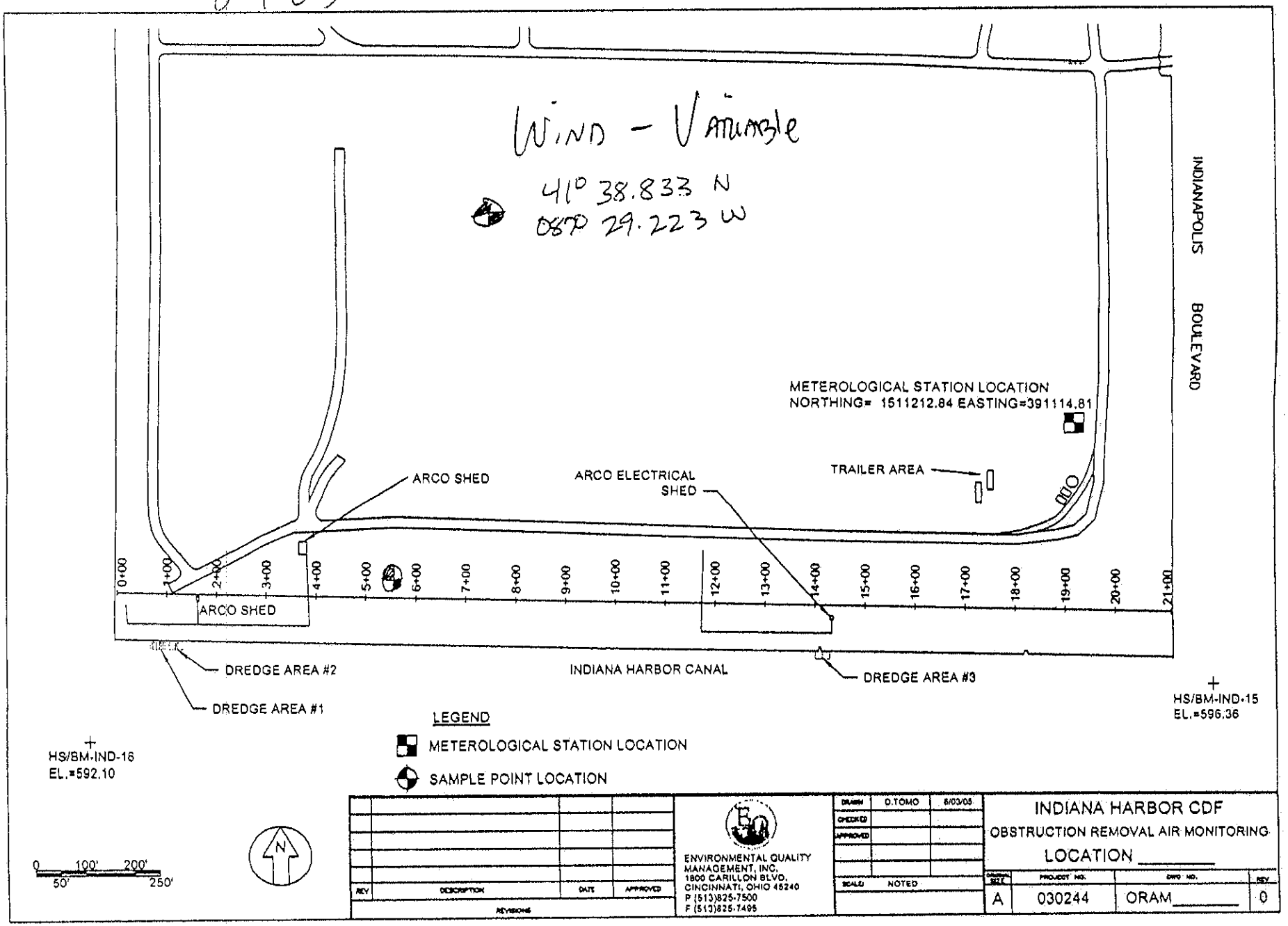
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min.~~ hr.	Air Volume, liters
TO-15	VOC 080905					08:00	07:30	23.5	6
TO-13	Semi-Vol 080905					08:00	07:30	23.5	977.4
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible] Calculations by: [illegible] Checked by:

Activities performed on site: Dredge, Dive, Expose Test on Piles
Weather conditions: Sunny, Hot, Humid, Variable Wind
Analytical lab: GRL COC Number: COC 13198, 13199

8-9-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION _____

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM_____	0

8-9-05

Enter city or US zip See weather related to ... GO

Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:45 AM	Clear 70°F	70°F	68°F	94%	5.0 miles	30.01	calm
5:45 AM	Partly Cloudy 64°F	64°F	63°F	94%	4.0 miles	30.01 →	calm
Sunrise at 5:52 AM							
6:55 AM	Fog 72°F	72°F	70°F	94%	2.0 miles	30.02 ↑	calm
7:50 AM	Sunny 75°F	78°F	72°F	89%	3.0 miles	30.03 ↑	calm
8:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	30.05 ↑	calm
10:50 AM	Sunny 91°F	95°F	66°F	43%	10.0 miles	30.03 ↓	From W 9mph
12:45 PM	Partly Cloudy 91°F	93°F	63°F	38%	10.0 miles	30.01 ↓	Variable 7mph
1:50 PM	Partly Cloudy 93°F	96°F	64°F	38%	10.0 miles	29.99 ↓	Variable 7mph
2:55 PM	Partly Cloudy 93°F	97°F	66°F	41%	10.0 miles	29.97 ↓	Variable 7mph
3:50 PM	Partly Cloudy 93°F	98°F	68°F	44%	10.0 miles	29.96 ↓	From SSW 9mph
4:50 PM	Partly Cloudy 91°F	96°F	68°F	46%	7.0 miles	29.95 ↓	From S 12mph
5:50 PM	Sunny 91°F	97°F	70°F	49%	7.0 miles	29.92 ↓	From S 9mph

NEXTEL.

Special Offers in East Chica

6:50 PM	Sunny 91°F	98°F	72°F	52%	7.0 miles	29.90↓	From S 14mph
7:50 PM	Partly Cloudy 88°F	92°F	70°F	55%	7.0 miles	29.93↑	From S 9mph
Sunset at 7:57 PM							
8:50 PM	Partly Cloudy 84°F	88°F	70°F	62%	7.0 miles	29.95↑	From S 9mph
9:50 PM	Partly Cloudy 82°F	86°F	70°F	66%	7.0 miles	29.96↑	From S 9mph

Avg. 84° 79.98

Back to previous page

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Weather a

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng. pipe Removal

JOB NO: 072 DATE: 8-9-05

VIS: TEMP:

30-2300
3100
H.P.- 3000

DIVER: Jack Bendowin

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0819	NG	LS	NG		LS	
LB	1029	RNT	LB	RNT		LB	
BT	130 min TBT		BT			ST	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Continue getting + cutting 10" pipe : Unable to Maintain a hole around pipe to allow cutting.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: thatcher Ave. pipe removal

JOB NO: 072 DATE: 8-9-05

VIS: TEMP:

30-2300
3100
H.P.- 3000

DIVER: Jack Bertoni

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0819	NG	LS	NG		LS	
LB	1029	RNT	LB	RNT		LB	
BT	130 min TBT		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Continue getting + cutting 10" pipe : unable to maintain a hole around pipe to allow cutting.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

mon

Onyx Special Services, Inc — MARINE SERVICES — Job Safety Analysi

1401.59E.C5.072 In Harbor & Canal Pipe Removal

Plant:	Contact: Tom Schar	Date: 8-8-05
Location/Unit: In Harbor Canal	Time JSA Completed: 0730.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name:	Job Description: Cutting out pipe crossings / Air lifting • Jetting	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of South	Primary Evacuation Point: Thatcher Trailer	
Secondary Evacuation Point: E & G Trailer	Backup Emergency Communications:	
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05	Is Pin Intact: [X] Yes [ ] No

Personal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/a [ ] Half Face Respirator: Facepiece Model #:
[ ] Full Face Respirator: Facepiece Model #: [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR** N/a

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: If working around noisy Equip.

Mon

Onyx Special Services, Inc — MARINE SERVICES — Job Safety Analysis

1401.59E.05.072 In Harbor & Canal Pipe Removal

Plant:	Contact: Tom Schan	Date: 8-8-05
Location/Unit: In Harbor Canal	Time JSA Completed: 0730.	Person Initiating JSA:
Plant Emergency #:	Emergency Shower and Eyewash Location: Thatcher Trailer	
Supervisor's Name:	Job Description: Cutting out pipe crossing / Air lifting & Jetting	

Type of Permit Required:

[ ] General Safe Work Permit	[X] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[ ] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: out of South	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: E G Trailer	Backup Emergency Communications:
Fire Extinguisher Available: Yes	Inspection Date: 5-8-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item **needed for the job**

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other: _____

Head Protection:
[X] Hard Hat [ ] Other: _____

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots **For All Hydroblasting Operations:** [ ] Metatarsal Boots

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other: _____

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit Potable Water Dive Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other: _____

Respiratory Protection:
[ ] Disposal Dust Respirator: Facepiece Model #: N/a [ ] Half Face Respirator: Facepiece Model #: _____
[ ] Full Face Respirator: Facepiece Model #: _____ [ ] Cartridge Type:
[ ] Supplied Air Respirator **Do all crewmembers have a current fit test card for respirator being used: [ ] Yes [ ] No **IF NO, DO NOT USE RESPIRATOR** N/a

Hearing Protection:
[X] Ear Plugs [ ] Ear Muffs [ ] Other: if working around noisy Equip.

Mon.

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	N/A [ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	N/A [ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Air lift / Jetting
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARI
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Piping & uneven Coround / Sea Wall	Life Jacket within 4' of wall
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean up of Diver near Open pit
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Watch For Wind Changes Exhaust	Watch Compressors Intake
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane use • Carefull of Rigging	Watch For Over Head loads.
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	Jetting in water / Air lifting	Diver will mind location of Hos
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.		Don't Jet into Body
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladders.	3 point Contact When Climbing
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	Trip Hazards.	Don't Run.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-8-05 Jack Beaudoin	Jack Beaudoin		
Denny [illegible]	Don Tatum		
[illegible]	Jon Gillogeni		

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.085	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.106	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.005	No Sample		######	0.005	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.016
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	3200	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	18000	0.018	0.021	1020.5	22000	0.022	0.013	964.2	36000	0.037	0.019
PCB 15	979.1	1400	0.001	0.004	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.005	964.2	10000	0.010	0.006
PCB18	979.1	6800	0.006	0.028	973.4	12000	0.012	0.027	1020.5	51000	0.050	0.019	964.2	41000	0.043	0.025
PCB28	979.1	6700	0.006	0.017	973.4	14000	0.014	0.018	1020.5	45000	0.044	0.017	964.2	43000	0.045	0.024
PCB31	979.1	4700	0.005	0.018	973.4	13000	0.013	0.018	1020.5	69000	0.068	0.021	964.2	59000	0.061	0.031
PCB77	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB81	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB105	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1700	0.002	0.001	964.2	1400	0.001	0.001
PCB114	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB118	979.1	1400	0.001	0.002	973.4	2000	0.002	0.002	1020.5	4100	0.004	0.002	964.2	3100	0.003	0.003
PCB123	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB126	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB156	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB157	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB167	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB169	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB170	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB180	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1800	0.002	0.001	964.2	1500	0.002	0.001
PCB189	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
Total			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

Week of 7/18/2005

Parameter	Limit	7/18/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020	1024.4	38000	0.037	0.033
PCB 15		1003.9	13000	0.013	0.025	1041.4	14000	0.013	0.026	1024.4	10000	0.010	0.012
PCB18		1003.9	39000	0.039	0.030	1041.4	41000	0.039	0.036	1024.4	73000	0.071	0.048
PCB28		1003.9	49000	0.049	0.039	1041.4	58000	0.056	0.049	1024.4	46000	0.045	0.048
PCB31		1003.9	77000	0.077	0.016	1041.4	71000	0.068	0.029	1024.4	61000	0.060	0.067
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB105		1003.9	1600	0.001	0.001	1041.4	2100	0.002	0.001	1024.4	1500	0.001	0.002
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002	1024.4	ND	0.000	0.000
PCB118		1003.9	3300	0.003	0.001	1041.4	4800	0.005	0.002	1024.4	3300	0.003	0.004
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001	1024.4	1500	0.001	0.002
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000	1024.4	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044			0.000	0.044

Parameter	7/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	989.0	19000	0.019	0.033	979.5	19000	0.019	0.029	1028.7	51000	0.050	0.033	1024.9	35000	0.034	0.032
PCB 15	989.0	5000	0.005	0.010	979.5	4600	0.005	0.009	1028.7	14000	0.014	0.009	1024.9	9600	0.009	0.008
PCB18	989.0	28000	0.028	0.044	979.5	42000	0.043	0.044	1028.7	100000	0.097	0.056	1024.9	80000	0.078	0.064
PCB28	989.0	22000	0.022	0.043	979.5	24000	0.025	0.039	1028.7	51000	0.050	0.039	1024.9	64000	0.063	0.039
PCB31	989.0	24000	0.024	0.058	979.5	27000	0.028	0.061	1028.7	77000	0.075	0.061	1024.9	71000	0.069	0.061
PCB77	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB81	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB105	989.0	1300	0.001	0.002	979.5	ND	0.001	0.001	1028.7	1600	0.002	0.001	1024.9	2900	0.003	0.002
PCB114	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB118	989.0	3100	0.003	0.003	979.5	2200	0.002	0.003	1028.7	3500	0.003	0.003	1024.9	6000	0.006	0.004
PCB123	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB126	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB156	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB157	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB167	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB169	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB170	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB180	989.0	1300	0.001	0.001	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001	1024.9	3300	0.003	0.002
PCB189	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
Total			0.000	0.044			0.000	0.044			0.000	0.000			0.000	0.000

Week of 7/25/2005

Parameter	Limit	7/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1031.9	67000	0.056	0.018	967.7	9000	0.009	0.018	1038.5	13000	0.013	0.032
PCB 15		1031.9	13000	0.013	0.052	967.7	2200	0.002	0.047	1038.5	2300	0.002	0.008
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.018	0.046	1038.5	15000	0.014	0.058
PCB28		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049	1038.5	9900	0.010	0.037
PCB31		1031.9	71000	0.069	0.014	967.7	15000	0.016	0.017	1038.5	11000	0.011	0.049
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003	1038.5	ND	0.000	0.000
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002	1038.5	1200	0.001	0.003
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB170		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
Total	1000.0			0.291	0.000			0.000	0.058			0.000	0.058

Parameter	7/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	989.3	28000	0.028	0.028		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	989.3	6000	0.006	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	989.3	45000	0.045	0.047	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	989.3	28000	0.028	0.032	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	989.3	34000	0.034	0.040	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	989.3	2200	0.002	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.058			0.000	0.058			0.000	0.000			0.000	0.000

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volitiles

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		######	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		######	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		######	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		######	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Chrysene	365.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Flouranthene	1250.0	No Sample		#VALUE!	2.294	No Sample		######	2.294	990.7	1200	1.211	1.615
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		######	5.555	990.7	2300	2.322	4.675
Indene(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Napthalene	30.0	No Sample		#VALUE!	17.336	No Sample		######	17.336	990.7	5900	5.955	16.190
Phenanthrene	9376.0	No Sample		#VALUE!	12.009	No Sample		######	12.009	990.7	5700	5.754	8.681
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		######	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	979.1	1400	1.430	3.502	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.826	964.2	8000	8.297	4.290
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.705	1020.5	940	0.921	0.387	964.2	1000	1.037	0.545
Anthracene	979.1	ND	0.255	0.363	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	964.2	700	0.726	0.425
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(b)flouranthene	979.1	ND	0.255	0.296	973.4	ND	0.257	0.296	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Flouranthene	979.1	990	1.011	1.681	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.878	964.2	4100	4.252	2.289
Flourene	979.1	1800	1.838	4.627	973.4	3100	3.185	4.804	1020.5	10000	9.799	3.789	964.2	9200	9.542	5.337
Indene(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Napthalene	979.1	4200	4.290	15.087	973.4	5600	5.753	12.835	1020.5	9000	8.819	7.162	964.2	6900	7.156	6.395
Phenanthrene	979.1	4200	4.290	8.093	973.4	8000	8.164	8.405	1020.5	24000	23.518	9.204	964.2	21000	21.780	12.301
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2600	2.548	1.340	964.2	2800	2.904	1.800

Week of 07/18/05

Parameter	Limit	7/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	5.608	1041.4	5600	5.377	6.396	1024.4	4900	4.783	6.860
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.873	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	990	0.990	0.573	1041.4	820	0.787	0.679	1024.4	710	0.693	0.767
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	365.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.607	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.375	1024.4	5800	5.662	8.871
Indene(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.998	7.603	1041.4	6800	6.530	8.051	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.687	1024.4	3100	3.026	3.066

Parameter	7/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.0	1900	1.921	5.735	979.5	7800	7.963	5.669	1028.7	8100	7.874	5.584	1024.9	8600	8.586	6.226
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.389	1024.9	ND	0.244	0.248
Anthracene	989.0	ND	0.253	0.600	979.5	ND	0.255	0.596	1028.7	680	0.661	0.530	1024.9	8900	8.684	2.109
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Dibenzo(a,h)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Flouranthene	989.0	2400	2.427	3.840	979.5	1600	1.633	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	3.542
Flourene	989.0	3300	3.337	7.578	979.5	7500	7.657	7.201	1028.7	7900	7.680	6.538	1024.9	10000	9.757	6.818
Indene(1,2,3-cd)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Napthalene	989.0	5400	5.460	7.146	979.5	16000	16.335	8.982	1028.7	12000	11.665	8.918	1024.9	18000	17.563	11.122
Phenanthrene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.356	19.445	1024.9	31000	30.247	20.501
Pyrene	989.0	1600	1.618	2.880	979.5	1800	1.833	2.626	1028.7	3000	2.916	2.549	1024.9	4400	4.293	2.697

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1031.9	6900	6.687	6.606	967.7	2900	2.997	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.655	1038.5	2100	2.022	0.909
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.209
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	365.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.769	967.7	1900	1.963	3.677	1038.5	1100	1.059	3.562
Flourene	1250.0	1031.9	9200	8.916	7.469	967.7	4200	4.340	7.670	1038.5	6300	6.066	7.352
Indene(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	16000	15.505	13.308	967.7	10000	10.334	14.280	1038.5	36000	34.665	17.946
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.664	1038.5	9400	9.052	19.631
Pyrene	938.0	1031.9	3800	3.683	2.829	967.7	1500	1.550	2.815	1038.5	1000	0.963	2.681

Parameter	7/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.3	9700	9.805	6.886			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	989.3	10000	10.108	7.837	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	989.3	ND	0.253	0.246	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	989.3	30000	30.324	21.678	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	989.3	21000	21.227	19.405	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	989.3	2000	2.022	2.502	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
265

DATE
10 Aug 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 75 °F, Max 84 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ mixed dredge spoil and performed site clean up. Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 265

DATE 10 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
BCM	SAFETY ENGINEER - ON SITE	1.0	8.0
BCM	SUPER - JOB	1.0	8.0
BCM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
		Total 5.0	40.0

Total hours worked to date: 5,368.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CRC2136	Small Excavator	0.0	8.0
		Total 8.0	8.0

Total operating hours to date: 1,048.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:15:34 10-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:15:34 Aug 10
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:15:34 Aug 10
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Aug	09:20:34	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:22:23 10-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:22:23 Aug 10
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:22:23 Aug 10
Overall Avg Conc: 0 000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	10-Aug	11:27:23	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:26:36 10-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:26:36 Aug 10
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:26:36 Aug 10
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Aug	13:31:36	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:13:01 10-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:13:01 Aug 10
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:13:01 Aug 10
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	10-Aug	15:18:01	0.003

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ-13290

ect No.: 0302414

Project Name: Indiana Harbor Obstruction Removal

npler/Affiliation: (Print Name and Sign): Ben Cetany / EQM

Lab P.O. No:

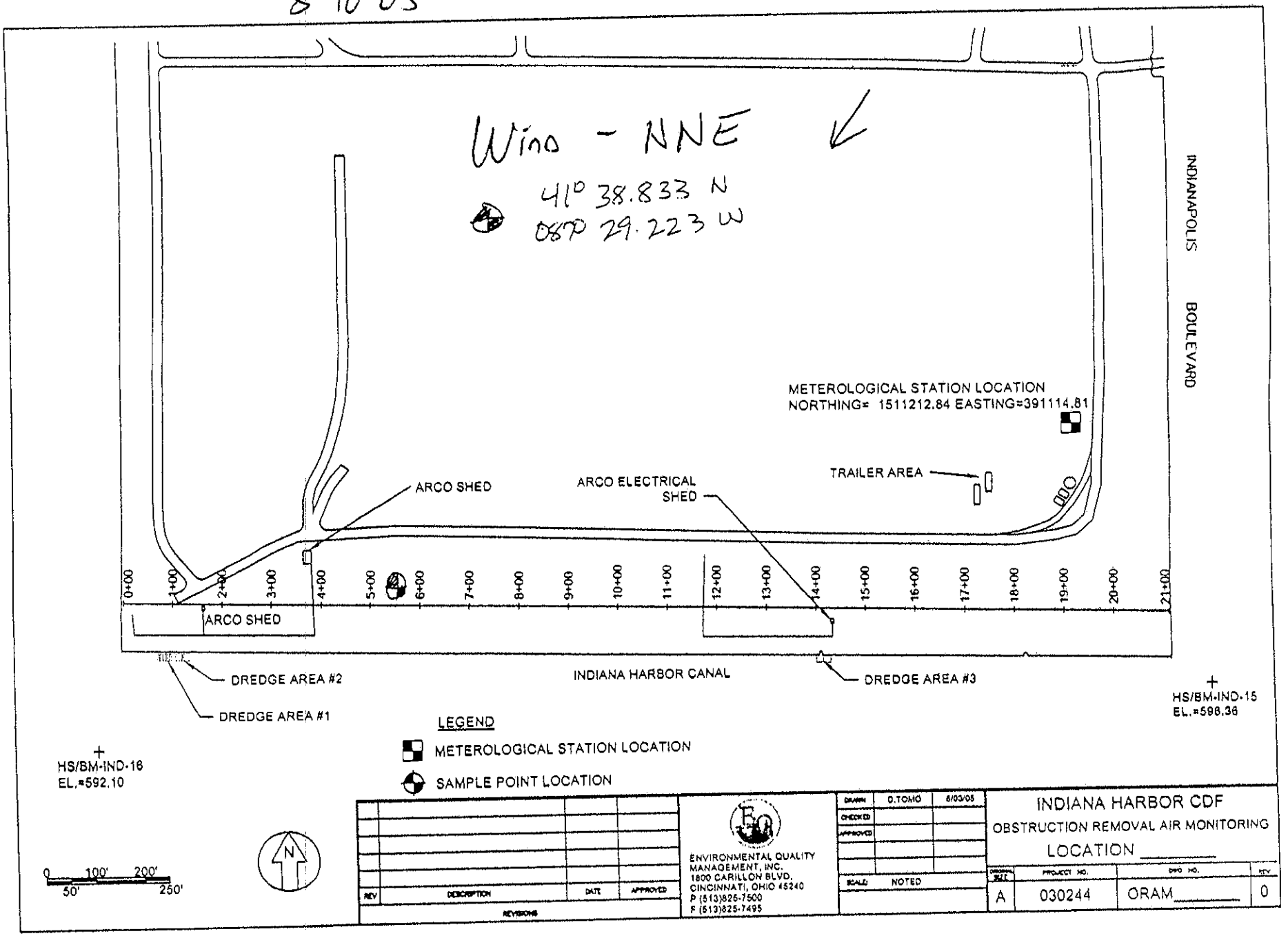
nple ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TO-15	TO-13/TO-13/168
Vox 081005	8-10-05	24hr.	Summa Canister	6 L	1	X	
Semi-Vol 081005	8-10-05	24hr.	Filter	1,013.8 L	2		X X

	Date	Time		Date	Time	
linquished by: (Signature)	8-11-05	922	Received by: (Signature)	8/11/05	922	Ship To: STL- Pick up on site
linquished by: (Signature)			Received by: (Signature)			
linquished by: (Signature)			Received by: (Signature)			Airbill Number

porting/QA Requirements:	Turn Around Time (EXACT DUE DATE): 7-Day 8/19/05	Report To: Jackie Dean	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

8-10-05


Wind - NNE
41° 38.833 N
087° 29.223 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=598.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 6/03/05
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
DRAWING SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV 0

SAMPLING DATA SHEET

Site: 030244
PN: Indiana Harbor
Date: 8/10/05
Page: 1 of 1

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	Vol	081005				07:30	07:30	24	6
TO-13	Semi-Vol	081005				07:30	07:30	24	1013.8
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [signature]
Calculations by: [signature]
Checked by:

Activities performed on site: Sampling Dredge Material
Weather conditions: Humidity, Sunny, Hot, Dry
Analytical lab: STL
COC Number: EQ-13200

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
5-10-05 0755	PDR	[illegible]	zero Calibration	"Cal OK"	Rain Changing to Sun Hot

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

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8-10-05

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:50 AM	Mostly Cloudy 79°F	83°F	72°F	78%	7.0 miles	29.92	From SSW 7mph
Sunrise at 5:53 AM							
5:55 AM	Light Rain 79°F	83°F	72°F	78%	3.0 miles	29.95 ↑	From SSW 7mph
6:55 AM	Mostly Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.94 ↓	Variable 7mph
7:50 AM	Cloudy 77°F	81°F	73°F	89%	5.0 miles	29.95 ↑	Variable 7mph
9:50 AM	Haze 81°F	85°F	72°F	74%	5.0 miles	29.96 ↑	calm
10:50 AM	Haze 82°F	88°F	73°F	74%	5.0 miles	29.96 →	calm
11:50 AM	Partly Cloudy 84°F	89°F	72°F	66%	Unlimited	29.97 ↑	From NNE 9mph
12:55 PM	Partly Cloudy 84°F	91°F	73°F	70%	Unlimited	29.96 ↓	From NNE 12mph
1:50 PM	Partly Cloudy 84°F	89°F	72°F	66%	Unlimited	29.96 →	From ENE 12mph
2:50 PM	Partly Cloudy 84°F	88°F	70°F	62%	Unlimited	29.95 ↓	From NE 12mph
3:50 PM	Partly Cloudy 84°F	89°F	72°F	66%	Unlimited	29.95 →	N/A
4:50 PM	Partly Cloudy	88°F	70°F	62%	Unlimited	29.94 ↓	From NE 7mph

Today in East Chicago

- Exercise tips to beat the heat
- Allergy outlook & pollen counts
- Hot weather lawn & garden car
- Weekend grilling & cookout for
- Live local traffic reports

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		84°F						
5:50 PM		Partly Cloudy 82°F	87°F	72°F	70%	Unlimited	29.95 ↑	From NNE 12mph
6:50 PM		Partly Cloudy 81°F	86°F	73°F	79%	Unlimited	29.96 ↑	From NNE 12mph
7:50 PM		Partly Cloudy 79°F	83°F	73°F	83%	Unlimited	29.97 ↑	From NNE 12mph
Sunset at 7:56 PM								
8:50 PM		Partly Cloudy 79°F	83°F	72°F	78%	Unlimited	29.97 →	From NE 12mph
9:50 PM		Partly Cloudy 77°F	80°F	72°F	83%	Unlimited	29.99 ↑	From NNE 12mph

Avg. 81° 29.96

Back to previous page

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12 PM | Weather Center

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This Week's Features

Summer Lawn Care

Tips to gro yard in hot weather.

Driving Weather

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Summer Adventure

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Mobile Weather

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Travel

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.086	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3		ppb	ug/m3	
	Limit	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average	Raw Data	Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.106	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2300	0.002	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000

Parameter	7/14/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	979.1	4300	0.004	0.020	973.4	18000	0.018	0.021	1020.5	22000	0.022	0.013	964.2	36000	0.037	0.019
PCB 15	979.1	1400	0.001	0.004	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.005	964.2	10000	0.010	0.006
PCB18	979.1	5800	0.006	0.028	973.4	12000	0.012	0.027	1020.5	51000	0.050	0.019	964.2	41000	0.043	0.025
PCB28	979.1	5700	0.006	0.017	973.4	14000	0.014	0.018	1020.5	45000	0.044	0.017	964.2	43000	0.045	0.024
PCB31	979.1	4700	0.005	0.018	973.4	13000	0.013	0.018	1020.5	69000	0.068	0.021	964.2	59000	0.061	0.031
PCB77	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB81	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB105	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1700	0.002	0.001	964.2	1400	0.001	0.001
PCB114	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB118	979.1	1400	0.001	0.002	973.4	2000	0.002	0.002	1020.5	4100	0.004	0.002	964.2	3100	0.003	0.003
PCB123	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB126	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB156	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB157	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB167	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB169	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB170	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB180	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1800	0.002	0.001	964.2	1600	0.002	0.001
PCB189	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
Total			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

Week of 7/18/2005

Parameter	Limit	7/18/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020	1024.4	36000	0.037	0.033
PCB 15		1003.9	13000	0.013	0.025	1041.4	14000	0.013	0.026	1024.4	10000	0.010	0.012
PCB18		1003.9	39000	0.039	0.030	1041.4	41000	0.039	0.036	1024.4	73000	0.071	0.048
PCB28		1003.9	49000	0.049	0.039	1041.4	58000	0.056	0.049	1024.4	46000	0.046	0.048
PCB31		1003.9	77000	0.077	0.016	1041.4	71000	0.068	0.029	1024.4	51000	0.050	0.067
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB105		1003.9	1500	0.001	0.001	1041.4	2100	0.002	0.001	1024.4	1600	0.001	0.002
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002	1024.4	ND	0.000	0.000
PCB118		1003.9	3300	0.003	0.001	1041.4	4800	0.005	0.002	1024.4	3300	0.003	0.004
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001	1024.4	1600	0.001	0.002
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000	1024.4	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044			0.000	0.044

Parameter	7/21/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	989.0	19000	0.019	0.033	979.5	19000	0.019	0.029	1028.7	51000	0.050	0.033	1024.9	35000	0.034	0.032
PCB 15	989.0	5000	0.005	0.010	979.5	4500	0.005	0.009	1028.7	14000	0.014	0.009	1024.9	9500	0.009	0.008
PCB18	989.0	28000	0.028	0.044	979.5	42000	0.043	0.044	1028.7	100000	0.097	0.056	1024.9	80000	0.078	0.054
PCB28	989.0	22000	0.022	0.043	979.5	24000	0.025	0.039	1028.7	51000	0.050	0.039	1024.9	54000	0.053	0.039
PCB31	989.0	24000	0.024	0.058	979.5	27000	0.028	0.051	1028.7	77000	0.075	0.051	1024.9	71000	0.069	0.061
PCB77	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB81	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB105	989.0	1300	0.001	0.002	979.5	ND	0.001	0.001	1028.7	1600	0.002	0.001	1024.9	2900	0.003	0.002
PCB114	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB118	989.0	3100	0.003	0.003	979.5	2200	0.002	0.003	1028.7	3500	0.003	0.003	1024.9	6000	0.006	0.004
PCB123	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB126	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB156	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB157	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB167	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB169	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB170	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB180	989.0	1300	0.001	0.001	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001	1024.9	3300	0.003	0.002
PCB189	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
Total			0.000	0.044			0.000	0.044			0.000	0.000			0.000	0.000

Week of 7/25/2005

Parameter	Limit	7/25/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1031.9	57000	0.055	0.018	967.7	9000	0.009	0.018	1038.5	13000	0.013	0.032
PCB 15		1031.9	13000	0.013	0.052	967.7	2200	0.002	0.047	1038.5	2300	0.002	0.008
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.018	0.045	1038.5	15000	0.014	0.058
PCB28		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049	1038.5	9900	0.010	0.037
PCB31		1031.9	71000	0.069	0.014	967.7	15000	0.016	0.017	1038.5	11000	0.011	0.048
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003	1038.5	ND	0.000	0.000
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002	1038.5	1200	0.001	0.003
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
PCB170		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000
Total	1000.0			0.291	0.000			0.000	0.058			0.000	0.058

Parameter	7/28/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8	989.3	28000	0.028	0.029		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15	989.3	6000	0.006	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	989.3	45000	0.045	0.047	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	989.3	28000	0.028	0.032	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	989.3	34000	0.034	0.040	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	989.3	2200	0.002	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.058			0.000	0.058			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatile

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		######	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		######	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		######	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		######	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Chrysene	355.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Flouranthene	1250.0	No Sample		#VALUE!	2.204	No Sample		######	2.204	990.7	1200	1.211	1.816
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		######	5.555	990.7	2300	2.322	4.675
Indene(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Napthalene	30.0	No Sample		#VALUE!	17.336	No Sample		######	17.336	990.7	5900	5.955	16.190
Phenanthrene	9376.0	No Sample		#VALUE!	12.009	No Sample		######	12.009	990.7	5700	5.754	8.661
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		######	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	979.1	1400	1.430	3.502	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.626	964.2	6000	6.297	4.290
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.706	1020.5	940	0.921	0.387	964.2	1000	1.037	0.545
Anthracene	979.1	ND	0.255	0.363	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	964.2	700	0.726	0.425
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(b)flouranthene	979.1	ND	0.255	0.295	973.4	ND	0.257	0.296	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Flouranthene	979.1	990	1.011	1.881	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.878	964.2	4100	4.252	2.289
Flourene	979.1	1800	1.838	4.627	973.4	3100	3.186	4.804	1020.5	10000	9.799	3.789	964.2	9200	9.542	5.337
Indene(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Napthalene	979.1	4200	4.290	15.087	973.4	5800	5.753	12.835	1020.5	9000	8.819	7.162	964.2	6900	7.156	6.395
Phenanthrene	979.1	4200	4.290	8.093	973.4	6000	6.164	8.405	1020.5	24000	23.518	9.204	964.2	21000	21.780	12.301
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2800	2.548	1.340	964.2	2800	2.904	1.600

Week of 07/18/05

Parameter	Limit	7/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	5.606	1041.4	5600	5.377	6.396	1024.4	4900	4.783	6.880
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.873	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	990	0.990	0.573	1041.4	820	0.787	0.679	1024.4	710	0.693	0.767
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	355.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.007	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.376	1024.4	5800	5.662	8.871
Indene(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.996	7.603	1041.4	6600	6.530	8.051	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.887	1024.4	3100	3.028	3.066

Parameter	7/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.0	1900	1.921	5.735	979.5	7800	7.963	5.669	1028.7	8100	7.874	5.584	1024.9	8600	8.586	6.226
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.389	1024.9	ND	0.244	0.248
Anthracene	989.0	ND	0.253	0.690	979.5	ND	0.255	0.596	1028.7	680	0.661	0.530	1024.9	8900	8.684	2.109
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Dibenzo(a,h)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Flouranthene	989.0	2400	2.427	3.840	979.5	1600	1.633	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	3.542
Flourene	989.0	3300	3.337	7.576	979.5	7500	7.657	7.201	1028.7	7900	7.680	6.538	1024.9	10000	9.757	6.818
Indene(1,2,3-cd)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Napthalene	989.0	5400	5.460	7.146	979.5	16000	16.335	8.962	1028.7	12000	11.665	8.916	1024.9	18000	17.563	11.122
Phenanthrene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.358	19.445	1024.9	31000	30.247	20.501
Pyrene	989.0	1600	1.618	2.880	979.5	1600	1.633	2.626	1028.7	3000	2.916	2.549	1024.9	4400	4.293	2.697

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1031.9	6000	6.087	6.006	967.7	2900	2.997	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.555	1038.5	2100	2.022	0.909
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.209
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	355.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.769	967.7	1900	1.963	3.877	1038.5	1100	1.059	3.662
Flourene	1250.0	1031.9	9200	8.916	7.469	967.7	4200	4.340	7.670	1038.5	6300	6.066	7.352
Indene(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	16000	15.505	13.306	967.7	10000	10.334	14.280	1038.5	36000	34.665	17.946
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.684	1038.5	9400	9.052	19.631
Pyrene	938.0	1031.9	3800	3.683	2.829	967.7	1500	1.550	2.815	1038.5	1000	0.963	2.681

Parameter	7/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.3	9700	9.806	6.866			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	989.3	10000	10.108	7.837	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	989.3	30000	30.324	21.676	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	989.3	21000	21.227	19.405	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene	989.3	2000	2.022	2.602	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 266 Page 1 of 2 DATE 11 Aug 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Mn 68 °F, Max 77 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ mixed dredge spoil, loaded roll off boxes, and performed site clean up. Air sampling continued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 266

DATE 11 Aug 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
BCM	SAFETY ENGINEER - ON SITE	1.0	8.0
BCM	SUPER - JOB	0.0	0.0
BCM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	4.0	32.0

Total hours worked to date: 5,400.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CRC2136	Small Excavator	0.0	8.0
	Total	8.0	8.0

Total operating hours to date: 1,056.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
			11-Aug-05

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:40:59 11-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.125 mg/m³
Time at maximum: 09:41:01 Aug 11
Max STEL Concentration: 0.023 mg/m³
Time at max STEL: 09:45:59 Aug 11
Overall Avg Conc: 0.068 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Aug	09:45:59	0.068

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 3
Start time and date: 11:07:06 11-Aug
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.043 mg/m³
Time at maximum: 11:09:46 Aug 11
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 11:10:36 Aug 11
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Aug	11:12:06	0.006

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 12:32:57 11-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.095 mg/m³
Time at maximum: 12:33:59 Aug 11
Max STEL Concentration: 0.022 mg/m³
Time at max STEL: 12:37:57 Aug 11
Overall Avg Conc: 0.065 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	11-Aug	12:37:57	0.066

1800 Carillon Blvd
Cincinnati, OH 45240
(513) 825-7500

Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13301

Project No.: 030244

Project Name: IHCDF

Samplers/Affiliation: (Print Name and Sign): Ed Wise

Lab P.O. No: 9138

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TS 13/3972	TS 13 1663
Semi Vol	8/11/15		Filter	9158	2	X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	8/12/15	0950	[signature]	8/12/15	0950
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Ship To:

Airbill Number

Reporting/QA Requirements:

Turn Around Time (EXACT DUE DATE):

Report To:

Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

1800 Carillon Blvd
Cincinnati, OH 45240
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Environmental Quality Management, Inc.
Chain of Custody Record

COC Tracking: EQ- 13302

Project No.	Project Name
030244	IACDF

Samplers/Affiliation: *(Print Name and Sign)* [illegible]

Lab P.O. No: 4131

Sample ID:	Date	Time	Description/Matrix:	Sample Volume / Comments	No. of Containers	TESTS: TO15
VOC	8/11/15		Juma	6L	1	X

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
[illegible]	8/11/15	0950	[illegible]	[illegible]	[illegible]
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time

Ship To:

Airbill Number

Reporting/QA Requirements:	Turn Around Time (***EXACT DUE DATE***):	Report To:	Chain of Custody Seal Numbers

Distribution: White - Accompanies Shipment Pink - Project Files Yellow - Laboratory File

Site: INDIANA HARBOR
PN 030244
Date: 8 / 11 / 05
Page: 1 of 1

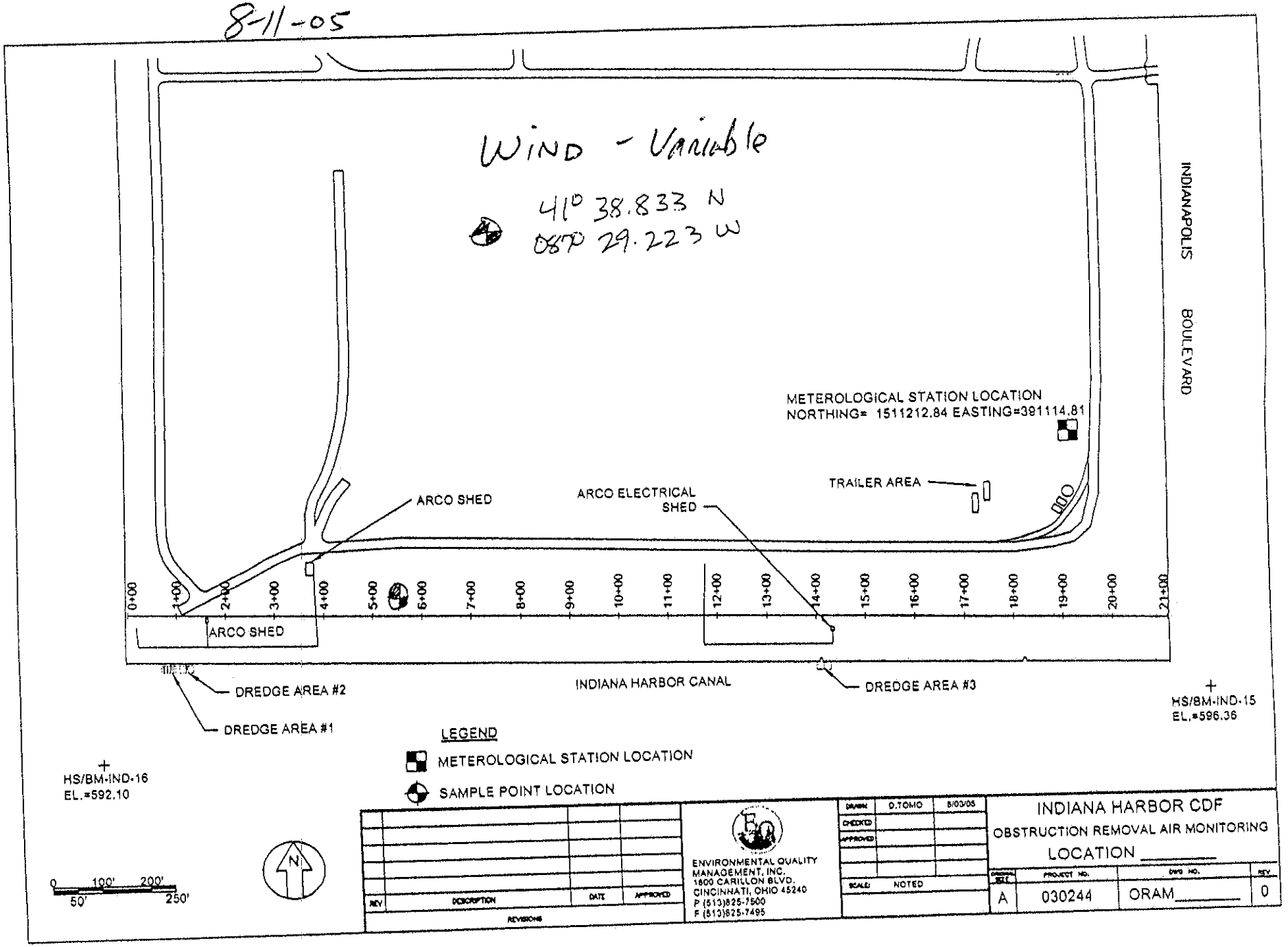
SAMPLING DATA SHEET

Sample Description/Location/NIOSH Method	Sample Number	Pump ID No.	Flow Rate, lpm Start	Flow Rate, lpm Stop	Flow Rate, lpm Avg.	Time Start	Time Stop	Duration, ~~min~~ hr	Air Volume, liters
TO-15	VOC081105					07:30	:	24	6
TO-13	Sum16l	081105				07:30	:	24	915.8
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		
						:	:		

Entries by: [illegible]
Calculations by: [illegible]
Checked by:

Activities performed on site: SOLIDIFY DREDGE MATERIAL
Weather conditions: AVERAGE, COOLER, BRIGHT, WARMER, WINDY
Analytical lab: STL
COC Number: TO 13301, 13302

8-11-05


WIND - Variable
41° 38.833 N
087° 29.223 W
INDIANAPOLIS BOULEVARD
METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.81
TRAILER AREA
ARCO SHED
ARCO ELECTRICAL SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
ARCO SHED
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-15
EL.=596.36
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 50' 100' 200' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN D.TOMO 8/03/05
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION
DRAWING SIZE A
PROJECT NO. 030244
DWG NO. ORAM
REV. 0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-11-05 0756	PDR	Ben Letang	Zero Calibration	"Cal OK"	overcast, cooler ENE wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-11-05

Enter city or US zip See weather related to GO

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Yesterday's Hourly Conditions as reported at Gary

Yesterday - Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Partly Cloudy 70°F	70°F	68°F	94%	7.0 miles	30.01	Variable 6mph
5:50 AM	Cloudy 68°F	68°F	66°F	94%	Unlimited	30.01 →	Variable 6mph
Sunrise at 5:54 AM							
6:50 AM	Cloudy 70°F	70°F	66°F	88%	Unlimited	30.01 →	From E 9mph
7:50 AM	Cloudy 75°F	78°F	70°F	83%	Unlimited	30.02 ↑	From E 9mph
8:50 AM	Light Rain 72°F	72°F	70°F	94%	7.0 miles	30.05 ↑	calm
9:50 AM	Light Rain with Thunder 73°F	73°F	70°F	88%	5.0 miles	30.07 ↑	From W 6mph
11:50 AM	Light Rain 70°F	70°F	68°F	94%	10.0 miles	30.02 ↓	From ENE 9mph
12:50 PM	Cloudy 73°F	73°F	70°F	88%	10.0 miles	29.99 ↓	From ESE 12mph
1:50 PM	Light Rain 73°F	73°F	70°F	88%	10.0 miles	30.03 ↑	From NW 5mph
2:50 PM	Light Rain 73°F	73°F	70°F	88%	4.0 miles	29.98 ↓	From ESE 9mph
3:50 PM	Cloudy 75°F	79°F	73°F	94%	7.0 miles	29.98 →	From ESE 9mph

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4:50 PM	Mostly Cloudy 75°F	78°F	72°F	89%	10.0 miles	30.04 ↑	From ESE 9mph
5:50 PM	Mostly Cloudy 75°F	78°F	70°F	83%	Unlimited	29.94 ↓	From SE 12mph
6:50 PM	Mostly Cloudy 75°F	78°F	70°F	83%	Unlimited	29.91 ↓	From SE 12mph
7:50 PM	Mostly Cloudy 75°F	78°F	72°F	89%	Unlimited	29.91 →	Variable 7mph

Sunset at 7:55 PM

8:50 PM	Mostly Cloudy 75°F	78°F	72°F	89%	Unlimited	29.91 →	Variable 7mph
9:55 PM	Cloudy 77°F	80°F	72°F	83%	Unlimited	29.91 →	From S 12mph

xly 1269 74.6 50479 29.99

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INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.085	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.106	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Parameter	Limit	Week of 7/11/2005				7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 6		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	16000	0.016	0.021	1020.5	22000	0.022	0.013	964.2	36000	0.037	0.019
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.005	964.2	10000	0.010	0.006
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	5800	0.006	0.028	973.4	12000	0.012	0.027	1020.5	45000	0.044	0.017	964.2	41000	0.043	0.025
PCB26		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	6700	0.006	0.017	973.4	14000	0.014	0.018	1020.5	69000	0.068	0.021	964.2	43000	0.045	0.024
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018	973.4	13000	0.013	0.018	1020.5	ND	0.000	0.001	964.2	59000	0.061	0.031
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	1700	0.002	0.001	964.2	1400	0.001	0.001
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	4100	0.004	0.002	964.2	3100	0.003	0.003
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4	2000	0.002	0.002	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.001	1020.5	1800	0.002	0.001	964.2	1500	0.002	0.001
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/18/2005				7/18/2005				7/19/2005				7/20/2005				7/21/2005				7/22/2005				7/23/2005				7/24/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 6		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020	1024.4	38000	0.037	0.033	989.0	19000	0.019	0.033	979.5	19000	0.019	0.029	1028.7	51000	0.050	0.033	1024.9	35000	0.034	0.032
PCB 15		1003.9	13000	0.013	0.025	1041.4	14000	0.013	0.026	1024.4	10000	0.010	0.012	989.0	5000	0.005	0.010	979.5	4500	0.005	0.009	1028.7	14000	0.014	0.009	1024.9	9500	0.009	0.008
PCB16		1003.9	39000	0.039	0.030	1041.4	41000	0.039	0.035	1024.4	73000	0.071	0.048	989.0	28000	0.028	0.044	979.5	42000	0.043	0.044	1028.7	100000	0.097	0.056	1024.9	80000	0.078	0.064
PCB26		1003.9	49000	0.049	0.039	1041.4	56000	0.056	0.049	1024.4	46000	0.045	0.046	989.0	22000	0.022	0.043	979.5	24000	0.025	0.039	1028.7	51000	0.050	0.039	1024.9	54000	0.053	0.039
PCB31		1003.9	77000	0.077	0.016	1041.4	71000	0.068	0.029	1024.4	61000	0.060	0.067	989.0	24000	0.024	0.058	979.5	27000	0.028	0.051	1028.7	77000	0.075	0.051	1024.9	71000	0.069	0.051
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB105		1003.9	1500	0.001	0.001	1041.4	2100	0.002	0.001	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.002	979.5	ND	0.001	0.000	1028.7	1600	0.002	0.001	1024.9	2900	0.003	0.002
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB118		1003.9	3300	0.003	0.001	1041.4	4600	0.005	0.002	1024.4	3300	0.003	0.004	989.0	3100	0.003	0.003	979.5	2200	0.002	0.003	1028.7	3500	0.003	0.003	1024.9	6000	0.006	0.004
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	3300	0.003	0.002
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.001	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001	1024.9	ND	0.000	0.000
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.000			0.000	0.000

Parameter	Limit	Week of 7/25/2005				7/25/2005				7/26/2005				7/27/2005				7/29/2005				7/29/2005				7/30/2005				7/31/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 6		1031.9	57000	0.055	0.018	967.7	9000	0.009	0.018	1038.5	13000	0.013	0.032	989.3	28000	0.028	0.028		0	#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB 15		1031.9	13000	0.013	0.052	967.7	2200	0.002	0.047	1038.5	2300	0.002	0.008	989.3	6000	0.006	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.018	0.046	1038.5	15000	0.014	0.058	989.3	45000	0.046	0.047	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB26		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049	1038.5	9900	0.010	0.037	989.3	28000	0.028	0.032	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1031.9	71000	0.069	0.014	967.7	15000	0.016	0.017	1038.5	11000	0.011	0.048	989.3	34000	0.034	0.040	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002	1038.5	1200	0.001	0.003	989.3	2200	0.002	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.291	0.000			0.000	0.058			0.000	0.058			0.000	0.058			0.000	0.058			0.000	0.000			0.000	0.000			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/13/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		######	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		######	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		######	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		######	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Chrysene	355.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Flouranthene	1250.0	No Sample		#VALUE!	2.294	No Sample		######	2.294	990.7	1200	1.211	1.815
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		######	5.555	990.7	2300	2.322	4.675
Indene(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.246
Napthalene	30.0	No Sample		#VALUE!	17.336	No Sample		######	17.336	990.7	5900	5.956	16.190
Phenanthrene	9376.0	No Sample		#VALUE!	12.009	No Sample		######	12.009	990.7	5700	5.754	8.681
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		######	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	979.1	1400	1.430	3.602	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.826	964.2	8000	8.297	4.290
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.705	1020.5	940	0.921	0.387	964.2	1000	1.037	0.545
Anthracene	979.1	ND	0.255	0.363	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	964.2	700	0.726	0.425
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.248	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(b)flouranthene	979.1	ND	0.255	0.295	973.4	ND	0.257	0.296	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Flouranthene	979.1	990	1.011	1.681	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.878	964.2	4100	4.252	2.289
Flourene	979.1	1600	1.636	4.627	973.4	3100	3.185	4.804	1020.5	10000	9.799	3.789	964.2	9200	9.542	5.337
Indene(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.254
Napthalene	979.1	4200	4.290	15.087	973.4	5600	5.753	12.835	1020.5	9000	8.819	7.162	964.2	6900	7.156	6.395
Phenanthrene	979.1	4200	4.290	8.093	973.4	8000	8.164	8.405	1020.5	24000	23.518	9.204	964.2	21000	21.780	12.301
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2600	2.548	1.340	964.2	2800	2.904	1.600

Week of 07/18/05

Parameter	Limit	7/18/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	5.606	1041.4	5600	5.377	6.396	1024.4	4900	4.783	6.880
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.873	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	990	0.990	0.573	1041.4	820	0.787	0.679	1024.4	710	0.693	0.767
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	355.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.807	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.375	1024.4	5600	5.662	8.871
Indene(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.996	7.603	1041.4	6800	6.530	8.051	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.687	1024.4	3100	3.026	3.066

Parameter	7/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.0	1900	1.921	5.735	979.5	7800	7.963	5.569	1028.7	8100	7.874	5.584	1024.9	8800	8.586	6.226
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.389	1024.9	ND	0.244	0.248
Anthracene	989.0	ND	0.253	0.890	979.5	ND	0.255	0.596	1028.7	680	0.661	0.530	1024.9	8900	8.684	2.109
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Dibenzo(a,h)anthracene	989.0	2400	2.427	3.840	979.5	1600	1.633	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	3.542
Flouranthene	989.0	3300	3.337	7.578	979.5	7500	7.657	7.201	1028.7	7900	7.680	8.538	1024.9	10000	9.757	6.818
Flourene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.248
Indene(1,2,3-cd)pyrene	989.0	5400	5.460	7.146	979.5	16000	16.335	8.982	1028.7	12000	11.665	8.916	1024.9	18000	17.563	11.122
Napthalene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.356	19.445	1024.9	31000	30.247	20.501
Phenanthrene	989.0	1600	1.618	2.880	979.5	1600	1.633	2.826	1028.7	3000	2.916	2.540	1024.9	4400	4.293	2.697

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1031.9	6900	6.687	6.606	967.7	2000	2.067	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.555	1038.5	2100	2.022	0.809
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.209
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	355.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.769	967.7	1900	1.963	3.677	1038.5	1100	1.059	3.562
Flourene	1250.0	1031.9	9200	8.916	7.469	967.7	4200	4.340	7.670	1038.5	6300	6.066	7.352
Indene(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	16000	15.505	13.306	967.7	10000	10.334	14.280	1038.5	36000	34.665	17.946
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.884	1038.5	9400	9.052	19.631
Pyrene	938.0	1031.9	3800	3.683	2.829	967.7	1500	1.550	2.815	1038.5	1000	0.963	2.681

Parameter	7/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	989.3	9700	9.805	6.886			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(b)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(k)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(ghi)perylene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(a)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Benzo(e)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Chrysene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Dibenzo(a,h)anthracene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flouranthene	989.3	10000	10.108	7.637	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Flourene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Indene(1,2,3-cd)pyrene	989.3	30000	30.324	21.878	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Napthalene	989.3	21000	21.227	19.405	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Phenanthrene	989.3	2000	2.022	2.502	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Pyrene																

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 267

DATE 12 Aug 2005 - Friday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 75 °F, Max 84 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ mixed dredge spoil, loaded roll off boxes, Ishipped four boxes, and performed site clean up. A total of 61 roll off boxes have been shipped fromthe site. No dredge spoil remains and air monitoring was discontinued. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards fromTask Force, one operator and one laborer fromMaintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 267

DATE 12 Aug 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	4.0	32.0

Total hours worked to date: 5,432.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CR02136	Small Excavator	0.0	8.0
	Total	8.0	8.0

Total operating hours to date: 1,064.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	8/15/5	William [signature]	8-16-05

REPUBLIC SERVICES, INC.

Area 1

0058

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of JSALE — Generator/Authorized Agent Name

Signature

8/12/5 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street, Markham, Illinois 60428

DOT# 328103

Truck Number: 88 Box 970

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent

Signature

8-12-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No: 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type)

Signature

Date Received

Form SW02 (2003)

Area 1

0058

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 88 Box 20-970
GENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 8/12/5
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	LANDFILL AUTHORIZED SIGNATURE:
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	PRINT NAME:

EQP 5224 (10/04)

AREA # 1

REPUBLIC SERVICES, INC.

0059

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20 130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

8-12-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

Area 1
0059

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

GENERATOR NAME: East Chicago Waterway Mgmt.

GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.

CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.

HAULER MAILING ADDRESS: 2320 W. 167th Street

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-130

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 YD.

1 TON = 2,000 LBS.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Rubizitis On Behalf of USACE

DATE: 8/12/15

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

Area 1
0060

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 8/12/5

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 88 20-926
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

M Hawell — 8-12-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

0060
Area 1

UNIFORM SOLID WASTE RECORD

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ART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
ENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN:
ENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 YD. 1 TON = 2,000 LBS.
ITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
ENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.	
ITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th STREET	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 8/12/15
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0061
Area 1

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312
Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

on Behalf of USACE

Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 721 Box 20128
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Nick LeBrun Nick LeBrun 8-12-05

Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc. Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) Signature Date Received

Form SW02 (2003)

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UW61 Area 1

UNIFORM SOLID WASTE RECORD

mpletion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural sources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be posed of in Michigan landfills.

rt 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be mpleted by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for spection.

ART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

ENERATOR NAME: East Chicago Waterway Mgmt.

ENERATOR MAILING ADDRESS: 4522 Indianapolis BLVD.

ITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

ENERATOR PHYSICAL ADDRESS: 3500 Indianapolis BLVD.

ITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

ENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

AME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.

HAULER MAILING ADDRESS: 2320 W. 167th Street

CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20128

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 yd.

1 TON = 2,000 LBS.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur Rubizaitis On Behalf of USACE

DATE: 8/12/15

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

INDIANA HARBORICDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter		Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.076	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.186	0.043	0.115	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter		Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.085	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter		Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
	Limit	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.105	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.225	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 7/11/2005

Parameter	Limit	7/11/2005				7/12/2005				7/13/2005				7/14/2005				7/15/2005				7/16/2005				7/17/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		No Sample		#VALUE!	0.027	No Sample		######	0.027	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020	973.4	18000	0.018	0.021	1020.5	22000	0.022	0.013	964.2	36000	0.037	0.019
PCB 15		No Sample		#VALUE!	0.006	No Sample		######	0.006	990.7	2700	0.003	0.004	979.1	1400	0.001	0.004	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.006	964.2	10000	0.010	0.006
PCB18		No Sample		#VALUE!	0.034	No Sample		######	0.034	990.7	14000	0.014	0.031	979.1	6600	0.006	0.028	973.4	12000	0.012	0.027	1020.5	61000	0.060	0.019	964.2	41000	0.043	0.025
PCB28		No Sample		#VALUE!	0.022	No Sample		######	0.022	990.7	11000	0.011	0.018	979.1	5700	0.006	0.017	973.4	14000	0.014	0.018	1020.5	45000	0.044	0.017	964.2	43000	0.045	0.024
PCB31		No Sample		#VALUE!	0.026	No Sample		######	0.026	990.7	9900	0.010	0.019	979.1	4700	0.006	0.018	973.4	13000	0.013	0.018	1020.5	69000	0.068	0.021	964.2	59000	0.061	0.031
PCB77		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB81		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB105		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1700	0.002	0.001	964.2	1400	0.001	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB118		No Sample		#VALUE!	0.002	No Sample		######	0.002	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002	973.4	2000	0.002	0.002	1020.5	4100	0.004	0.002	964.2	3100	0.003	0.003
PCB123		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB126		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB156		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB157		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB167		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB169		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB170		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
PCB180		No Sample		#VALUE!	0.001	No Sample		######	0.001	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001	973.4	ND	0.001	0.001	1020.5	1800	0.002	0.001	964.2	1600	0.002	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		######	0.000	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001	964.2	ND	0.001	0.001
Total	1000.0			#VALUE!	0.033			0.000	0.033			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000			0.000	0.000

Week of 7/18/2005

Parameter	Limit	7/18/2005				7/19/2005				7/20/2005				7/21/2005				7/22/2005				7/23/2005				7/24/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020	1024.4	38000	0.037	0.033	989.0	19000	0.019	0.033	979.6	19000	0.019	0.029	1028.7	51000	0.050	0.033	1024.9	35000	0.034	0.032
PCB 15		1003.9	13000	0.013	0.026	1041.4	14000	0.013	0.026	1024.4	10000	0.010	0.012	989.0	6000	0.006	0.010	979.6	4600	0.005	0.009	1028.7	14000	0.014	0.009	1024.9	9600	0.009	0.006
PCB18		1003.9	39000	0.039	0.030	1041.4	41000	0.039	0.036	1024.4	73000	0.071	0.048	989.0	28000	0.028	0.044	979.6	42000	0.043	0.044	1028.7	100000	0.097	0.066	1024.9	80000	0.078	0.064
PCB28		1003.9	49000	0.049	0.039	1041.4	58000	0.056	0.049	1024.4	46000	0.045	0.048	989.0	22000	0.022	0.043	979.6	24000	0.025	0.039	1028.7	51000	0.050	0.039	1024.9	64000	0.063	0.039
PCB31		1003.9	77000	0.077	0.016	1041.4	71000	0.068	0.029	1024.4	61000	0.060	0.067	989.0	24000	0.024	0.058	979.6	27000	0.028	0.051	1028.7	77000	0.075	0.061	1024.9	71000	0.069	0.051
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB105		1003.9	1600	0.001	0.001	1041.4	2100	0.002	0.001	1024.4	1600	0.001	0.002	989.0	1300	0.001	0.002	979.6	ND	0.001	0.001	1028.7	1600	0.002	0.001	1024.9	2900	0.003	0.002
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB118		1003.9	3300	0.003	0.001	1041.4	4800	0.005	0.002	1024.4	3300	0.003	0.004	989.0	3100	0.003	0.003	979.6	2200	0.002	0.003	1028.7	3600	0.003	0.003	1024.9	6000	0.006	0.004
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.001	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001	1024.9	3300	0.003	0.002
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000	979.6	ND	0.001	0.000	1028.7	ND	0.000	0.000	1024.9	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.044			0.000	0.000			0.000	0.000

Week of 7/25/2005

Parameter	Limit	7/25/2005				7/26/2005				7/27/2005				7/28/2005				7/29/2005				7/30/2005				7/31/2005			
		Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average	Sample Volume (liters)	pg Raw Data	ppb Calc. Data	5-Day Average
PCB 8		1031.9	57000	0.056	0.018	967.7	9000	0.009	0.018	1038.5	13000	0.013	0.032	989.3	28000	0.028	0.028		0	#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!
PCB 15		1031.9	13000	0.013	0.052	967.7	2200	0.002	0.047	1038.5	2300	0.002	0.008	989.3	6000	0.006	0.006	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.018	0.045	1038.5	15000	0.014	0.056	989.3	45000	0.045	0.047	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049	1038.5	9900	0.010	0.037	989.3	28000	0.028	0.032	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31		1031.9	71000	0.069	0.014	967.7	16000	0.016	0.017	1038.5	11000	0.011	0.048	989.3	34000	0.034	0.040	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002	1038.5	1200	0.001	0.003	989.3	2200	0.002	0.003	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total	1000.0			0.291	0.000			0.000	0.058			0.000	0.059			0.000	0.058			0.000	0.058			0.000	0.000			0.000	0.000

OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/12/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/13/2006 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		######	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		######	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		######	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		######	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Chrysene	355.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		######	0.246	990.7	ND	0.252	0.248
Flouranthene	1250.0	No Sample		#VALUE!	2.294	No Sample		######	2.294	990.7	1200	1.211	1.815
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		######	5.555	990.7	2300	2.322	4.076
Indene(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		######	0.245	990.7	ND	0.252	0.248
Napthalene	30.0	No Sample		#VALUE!	17.330	No Sample		######	17.330	990.7	5900	5.955	16.160
Phenanthrene	9376.0	No Sample		#VALUE!	12.000	No Sample		######	12.000	990.7	5700	5.754	8.881
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		######	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/15/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/16/2006 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/17/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	979.1	1400	1.430	3.502	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.828	964.2	8000	8.297	4.29
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.705	1020.5	940	0.921	0.387	964.2	1000	1.037	0.54
Anthracene	979.1	ND	0.255	0.363	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	964.2	700	0.726	0.42
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Benzo(b)flouranthene	979.1	ND	0.255	0.295	973.4	ND	0.257	0.296	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.25
Flouranthene	979.1	990	1.011	1.681	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.876	964.2	4100	4.252	2.2
Flourene	979.1	1800	1.838	4.627	973.4	3100	3.185	4.604	1020.5	10000	9.799	3.789	964.2	9200	9.542	5.3
Indene(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.2
Napthalene	979.1	4200	4.290	15.087	973.4	5600	5.753	12.835	1020.5	9000	8.819	7.162	964.2	8900	7.156	6.3
Phenanthrene	979.1	4200	4.290	8.093	973.4	6000	6.164	8.405	1020.5	24000	23.518	9.204	964.2	21000	21.760	12.3
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2800	2.548	1.340	964.2	2800	2.904	1.6

Week of 07/18/05

Parameter	Limit	7/18/2006 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/19/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/20/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	5.808	1041.4	5000	5.377	6.398	1024.4	4000	4.783	6.880
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.873	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	000	0.000	0.573	1041.4	820	0.787	0.879	1024.4	710	0.693	0.767
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.246
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	355.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.807	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.375	1024.4	5800	5.662	8.871
Indene(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.996	7.603	1041.4	6800	6.530	8.051	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.687	1024.4	3100	3.026	3.086

Parameter	7/21/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/22/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/23/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/24/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Da Avera
Acenapthene	989.0	1900	1.921	5.735	979.5	7900	7.993	5.669	1028.7	8100	7.874	5.584	1024.9	8600	8.586	6.
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.399	1024.9	ND	0.244	0.
Anthracene	989.0	ND	0.253	0.690	979.5	ND	0.255	0.596	1028.7	680	0.661	0.830	1024.9	8900	8.684	2.
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Dibenzo(a,h)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Flouranthene	989.0	2400	2.427	3.840	979.5	1800	1.833	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	3.
Flourene	989.0	3300	3.337	7.578	979.5	7500	7.657	7.201	1028.7	7900	7.680	6.538	1024.9	10000	9.757	6.
Indene(1,2,3-cd)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0.
Napthalene	989.0	5400	5.460	7.146	979.5	16000	16.335	8.982	1028.7	12000	11.665	8.916	1024.9	18000	17.583	11.
Phenanthrene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.358	19.445	1024.9	31000	30.247	20.
Pyrene	989.0	1800	1.818	2.880	979.5	1600	1.633	2.626	1028.7	3000	2.918	2.549	1024.9	4400	4.293	2.

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/26/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/27/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average
Acenapthene	1875.0	1031.9	6900	6.687	6.608	967.7	2900	2.997	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.555	1038.5	2100	2.022	0.909
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.209
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	355.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.789	967.7	1900	1.963	3.677	1038.5	1100	1.059	3.562
Flourene	1250.0	1031.9	9200	8.916	7.469	967.7	4200	4.340	7.670	1038.5	6300	6.066	7.352
Indene(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	18000	16.505	13.306	967.7	10000	10.334	14.280	1038.5	36000	34.665	17.946
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.864	1038.5	9400	9.052	19.831
Pyrene	938.0	1031.9	3800	3.683	2.829	967.7	1500	1.550	2.816	1038.5	1000	0.963	2.981

Parameter	7/28/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/29/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/30/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-Day Average	7/31/2005 Sample Volume (liters)	ng Raw Data	ug/m3 Calc. Data	5-D Aver
Acenapthene	989.3	9700	9.805	6.886			#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!			#DIV/0!	#DI
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DI
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DI
Benzo(a)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(b)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(k)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(ghi)perylene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(a)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(e)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Chrysene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Dibenzo(a,h)anthracene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Flouranthene	989.3	10000	10.108	7.837	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Flourene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Indene(1,2,3-cd)pyrene	989.3	30000	30.324	21.678	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Napthalene	989.3	21000	21.227	19.405	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Phenanthrene	989.3	2000	2.022	2.502	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Pyrene																

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 270

DATE 15 Aug 2005 - Monday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 61 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ performed miscellaneous site cleanup. The water phase removed fromthe canal sediment was transported off site. No dredge spoil remains on site and air monitoring was therefore not performed. Analytical air sampling results received to date are attached. Field sample data records are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ed Wise EQM, three security guards fromTask Force, one operator and one laborer fromMaintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
SamCarrico held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)
No preparatory or initial inspections were held today

ACTIVITY START/FINISH
No activities were started or finished today

QC REQUIREMENTS
No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)
No QC Punch List items were issued today
No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)
No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 270

DATE 15 Aug 2005 - Monday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	3.0	24.0

Total hours worked to date: 5,456.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CR02136	Small Excavator	0.0	8.0
	Total	8.0	8.0

Total operating hours to date: 1,072.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

CONTRACTOR'S SIGNATURE | DATE | SUPERINTENDENT'S INITIALS | DATE 8-16-05

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Volitile Organic Compounds

Parameter	Limit	Week of 06/27/05																				
		6/27/2005			6/28/2005			6/29/2005			6/30/2005			7/1/2005			7/2/2005			7/3/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.240	0.075	0.189	0.380	0.119	0.167	0.620	0.194	0.167	0.220	0.069	0.178	0.220	0.069	0.145	0.430	0.135	0.117	0.150	0.047	0.103
Ethyl Benzene	3565.0	0.042	0.010	0.027	0.096	0.022	0.023	0.110	0.025	0.023	0.047	0.011	0.023	0.045	0.010	0.020	0.066	0.015	0.017	0.027	0.006	0.014
Toluene	9065.0	0.310	0.082	0.246	0.660	0.175	0.213	0.870	0.231	0.213	0.310	0.082	0.225	0.310	0.082	0.183	0.490	0.130	0.140	0.260	0.069	0.119
Xylene	62510.0	0.188	0.043	0.116	0.376	0.087	0.093	0.490	0.113	0.093	0.202	0.047	0.095	0.191	0.044	0.084	0.271	0.062	0.070	0.095	0.022	0.058

Parameter	Limit	Week of 07/04/05																				
		7/4/2005			7/5/2005			7/6/2005			7/7/2005			7/8/2005			7/9/2005			7/10/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.220	0.069	0.108	0.350	0.110	0.086	0.390	0.122	0.086	0.950	0.297	0.096	0.420	0.131	0.129	0.710	0.222	0.177	0.860	0.269	0.208
Ethyl Benzene	3565.0	0.054	0.012	0.019	0.092	0.021	0.013	0.071	0.016	0.013	0.094	0.022	0.014	0.076	0.018	0.016	0.160	0.037	0.023	0.180	0.041	0.027
Toluene	9065.0	0.320	0.085	0.137	0.500	0.133	0.100	0.520	0.138	0.100	1.100	0.292	0.111	0.590	0.157	0.143	1.100	0.292	0.202	1.200	0.318	0.239
Xylene	62510.0	0.151	0.035	0.065	0.318	0.073	0.047	0.287	0.066	0.047	0.359	0.083	0.052	0.316	0.073	0.056	0.590	0.136	0.086	0.710	0.164	0.104

Parameter	Limit	Week of 07/11/05																				
		7/11/2005			7/12/2005			7/13/2005			7/14/2005			7/15/2005			7/16/2005			7/17/2005		
		ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average	ppb Raw Data	ug/m3 Calc. Data	5-Day Average
Benzene	40.0	0.670	0.210	0.318	0.510	0.160	0.198	0.340	0.106	0.198	0.220	0.069	0.193		0.000	0.163		0.000	0.067		0.000	0.035
Ethyl Benzene	3565.0	0.140	0.032	0.051	0.150	0.035	0.033	0.087	0.020	0.033	0.200	0.046	0.033		0.000	0.035		0.000	0.020		0.000	0.013
Toluene	9065.0	0.850	0.226	0.382	0.910	0.242	0.247	0.540	0.143	0.247	0.870	0.231	0.244		0.000	0.232		0.000	0.123		0.000	0.075
Xylene	62510.0	0.560	0.129	0.203	0.510	0.117	0.124	0.370	0.085	0.124	1.100	0.253	0.126		0.000	0.150		0.000	0.091		0.000	0.068

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
PCBs

Week of 7/11/2005

Parameter	Limit	7/11/2005 Sample Volume (liters)	7/11/2005 pg Raw Data	7/11/2005 ppb Calc. Data	7/11/2005 5-Day Average	7/12/2005 Sample Volume (liters)	7/12/2005 pg Raw Data	7/12/2005 ppb Calc. Data	7/12/2005 5-Day Average
PCB 4		No Sample		#VALUE!	0.027	No Sample		#####	0.027
PCB 15		No Sample		#VALUE!	0.006	No Sample		#####	0.006
PCB18		No Sample		#VALUE!	0.034	No Sample		#####	0.034
PCB28		No Sample		#VALUE!	0.022	No Sample		#####	0.022
PCB31		No Sample		#VALUE!	0.026	No Sample		#####	0.026
PCB77		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB81		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB105		No Sample		#VALUE!	0.001	No Sample		#####	0.001
PCB114		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB118		No Sample		#VALUE!	0.002	No Sample		#####	0.002
PCB123		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB126		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB156		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB157		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB167		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB169		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB170		No Sample		#VALUE!	0.000	No Sample		#####	0.000
PCB180		No Sample		#VALUE!	0.001	No Sample		#####	0.001
PCB189		No Sample		#VALUE!	0.000	No Sample		#####	0.000
Total	1000.0			#VALUE!	0.033			0.000	0.033

Parameter	7/13/2005 Sample Volume (liters)	7/13/2005 pg Raw Data	7/13/2005 ppb Calc. Data	7/13/2005 5-Day Average	7/14/2005 Sample Volume (liters)	7/14/2005 pg Raw Data	7/14/2005 ppb Calc. Data	7/14/2005 5-Day Average
PCB 4	990.7	12000	0.012	0.021	979.1	4300	0.004	0.020
PCB 15	990.7	3700	0.003	0.004	979.1	1400	0.001	0.004
PCB18	990.7	14000	0.014	0.031	979.1	5800	0.006	0.029
PCB28	990.7	11000	0.011	0.018	979.1	6700	0.006	0.017
PCB31	990.7	9900	0.010	0.019	979.1	4700	0.005	0.018
PCB77	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB81	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB105	990.7	ND	0.001	0.001	979.1	ND	0.001	0.001
PCB114	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB118	990.7	2200	0.002	0.002	979.1	1400	0.001	0.002
PCB123	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB126	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB156	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB157	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB167	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB169	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB170	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
PCB180	990.7	1100	0.001	0.001	979.1	ND	0.001	0.001
PCB189	990.7	ND	0.001	0.000	979.1	ND	0.001	0.000
Total			0.009	0.000			0.000	0.000

Parameter	7/15/2005 Sample Volume (liters)	7/15/2005 pg Raw Data	7/15/2005 ppb Calc. Data	7/15/2005 5-Day Average	7/16/2005 Sample Volume (liters)	7/16/2005 pg Raw Data	7/16/2005 ppb Calc. Data	7/16/2005 5-Day Average
PCB 4	973.4	18000	0.019	0.021	1020.5	22000	0.022	0.013
PCB 15	973.4	3700	0.004	0.004	1020.5	14000	0.014	0.005
PCB18	973.4	13000	0.013	0.027	1020.5	61000	0.060	0.019
PCB28	973.4	14000	0.014	0.018	1020.5	45000	0.044	0.017
PCB31	973.4	13000	0.013	0.018	1020.5	69000	0.068	0.021
PCB77	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB81	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB105	973.4	ND	0.001	0.001	1020.5	1700	0.002	0.001
PCB114	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB118	973.4	2900	0.002	0.002	1020.5	4100	0.004	0.002
PCB123	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB126	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB156	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB157	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB167	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB169	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB170	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
PCB180	973.4	ND	0.001	0.001	1020.5	1600	0.002	0.001
PCB189	973.4	ND	0.001	0.000	1020.5	ND	0.000	0.001
Total			0.000	0.000			0.000	0.000

Parameter	7/17/2005 Sample Volume (liters)	7/17/2005 pg Raw Data	7/17/2005 ppb Calc. Data	7/17/2005 5-Day Average
PCB 4	964.2	35000	0.037	0.019
PCB 15	964.2	10000	0.010	0.006
PCB18	964.2	41000	0.043	0.029
PCB28	964.2	43000	0.046	0.024
PCB31	964.2	59000	0.061	0.031
PCB77	964.2	ND	0.001	0.001
PCB81	964.2	ND	0.001	0.001
PCB105	964.2	1400	0.001	0.001
PCB114	964.2	ND	0.001	0.001
PCB118	964.2	3100	0.003	0.003
PCB123	964.2	ND	0.001	0.001
PCB126	964.2	ND	0.001	0.001
PCB156	964.2	ND	0.001	0.001
PCB157	964.2	ND	0.001	0.001
PCB167	964.2	ND	0.001	0.001
PCB169	964.2	ND	0.001	0.001
PCB170	964.2	ND	0.001	0.001
PCB180	964.2	1500	0.002	0.001
PCB189	964.2	ND	0.001	0.001
Total			0.000	0.000

Week of 7/18/2005

Parameter	Limit	7/18/2005 Sample Volume (liters)	7/18/2005 pg Raw Data	7/18/2005 ppb Calc. Data	7/18/2005 5-Day Average	7/19/2005 Sample Volume (liters)	7/19/2005 pg Raw Data	7/19/2005 ppb Calc. Data	7/19/2005 5-Day Average
PCB 4		1003.9	30000	0.030	0.012	1041.4	43000	0.041	0.020
PCB 15		1003.9	13000	0.013	0.025	1041.4	14000	0.013	0.036
PCB18		1003.9	39000	0.039	0.030	1041.4	61000	0.059	0.036
PCB28		1003.9	49000	0.049	0.039	1041.4	58000	0.056	0.049
PCB31		1003.9	77000	0.077	0.018	1041.4	71000	0.068	0.029
PCB77		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB81		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB105		1003.9	1600	0.001	0.001	1041.4	2100	0.002	0.001
PCB114		1003.9	ND	0.000	0.002	1041.4	ND	0.000	0.002
PCB118		1003.9	3200	0.003	0.001	1041.4	4800	0.005	0.002
PCB123		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB126		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB156		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB157		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB167		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB169		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB170		1003.9	ND	0.000	0.001	1041.4	ND	0.000	0.001
PCB180		1003.9	1300	0.001	0.001	1041.4	1600	0.002	0.001
PCB189		1003.9	ND	0.000	0.000	1041.4	ND	0.000	0.000
Total	1000.0			0.219	0.000			0.000	0.044

Parameter	7/20/2005 Sample Volume (liters)	7/20/2005 pg Raw Data	7/20/2005 ppb Calc. Data	7/20/2005 5-Day Average	7/21/2005 Sample Volume (liters)	7/21/2005 pg Raw Data	7/21/2005 ppb Calc. Data	7/21/2005 5-Day Average
PCB 4	1024.4	38000	0.037	0.033	989.0	19000	0.019	0.033
PCB 15	1024.4	10000	0.010	0.012	989.0	5000	0.005	0.010
PCB18	1024.4	73000	0.071	0.048	989.0	28000	0.028	0.044
PCB28	1024.4	46000	0.048	0.049	989.0	22000	0.022	0.043
PCB31	1024.4	61000	0.060	0.067	989.0	24000	0.024	0.058
PCB77	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB81	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB105	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.002
PCB114	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB118	1024.4	3300	0.003	0.004	989.0	3100	0.003	0.003
PCB123	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB126	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB156	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB157	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB167	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB169	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB170	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
PCB180	1024.4	1500	0.001	0.002	989.0	1300	0.001	0.001
PCB189	1024.4	ND	0.000	0.000	989.0	ND	0.001	0.000
Total			0.000	0.044			0.000	0.044

Parameter	7/22/2005 Sample Volume (liters)	7/22/2005 pg Raw Data	7/22/2005 ppb Calc. Data	7/22/2005 5-Day Average	7/23/2005 Sample Volume (liters)	7/23/2005 pg Raw Data	7/23/2005 ppb Calc. Data	7/23/2005 5-Day Average
PCB 4	979.5	19000	0.019	0.029	1028.7	51000	0.050	0.033
PCB 15	979.5	4600	0.005	0.009	1028.7	14000	0.014	0.009
PCB18	979.5	42000	0.043	0.044	1028.7	100000	0.097	0.066
PCB28	979.5	24000	0.025	0.039	1028.7	61000	0.060	0.039
PCB31	979.5	27000	0.028	0.051	1028.7	77000	0.075	0.061
PCB77	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB81	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB105	979.5	ND	0.001	0.001	1028.7	1600	0.002	0.001
PCB114	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB118	979.5	2200	0.002	0.003	1028.7	3600	0.003	0.003
PCB123	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB126	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB156	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB157	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB167	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB169	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB170	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
PCB180	979.5	1100	0.001	0.001	1028.7	1200	0.001	0.001
PCB189	979.5	ND	0.001	0.000	1028.7	ND	0.000	0.000
Total			0.000	0.044			0.000	0.000

Parameter	7/24/2005 Sample Volume (liters)	7/24/2005 pg Raw Data	7/24/2005 ppb Calc. Data	7/24/2005 5-Day Average
PCB 4	1024.9	35000	0.034	0.032
PCB 15	1024.9	9500	0.009	0.008
PCB18	1024.9	80000	0.078	0.054
PCB28	1024.9	54000	0.053	0.039
PCB31	1024.9	71000	0.069	0.051
PCB77	1024.9	ND	0.000	0.000
PCB81	1024.9	ND	0.000	0.000
PCB105	1024.9	2900	0.003	0.002
PCB114	1024.9	ND	0.000	0.000
PCB118	1024.9	6000	0.006	0.004
PCB123	1024.9	ND	0.000	0.000
PCB126	1024.9	ND	0.000	0.000
PCB156	1024.9	ND	0.000	0.000
PCB157	1024.9	ND	0.000	0.000
PCB167	1024.9	ND	0.000	0.000
PCB169	1024.9	ND	0.000	0.000
PCB170	1024.9	ND	0.000	0.000
PCB180	1024.9	3300	0.003	0.002
PCB189	1024.9	ND	0.000	0.000
Total			0.000	0.000

Week of 7/25/2005

Parameter	Limit	7/25/2005 Sample Volume (liters)	7/25/2005 pg Raw Data	7/25/2005 ppb Calc. Data	7/25/2005 5-Day Average	7/26/2005 Sample Volume (liters)	7/26/2005 pg Raw Data	7/26/2005 ppb Calc. Data	7/26/2005 5-Day Average
PCB 4		1031.9	57000	0.055	0.018	967.7	9000	0.009	0.018
PCB 15		1031.9	13000	0.013	0.052	967.7	7200	0.007	0.047
PCB18		1031.9	83000	0.080	0.046	967.7	17000	0.016	0.045
PCB28		1031.9	60000	0.058	0.051	967.7	13000	0.013	0.049
PCB31		1031.9	71000	0.069	0.014	967.7	15000	0.016	0.017
PCB77		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB81		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001
PCB105		1031.9	2400	0.002	0.001	967.7	ND	0.001	0.001
PCB114		1031.9	ND	0.000	0.003	967.7	ND	0.001	0.003
PCB118		1031.9	5400	0.005	0.001	967.7	1300	0.001	0.002
PCB123		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB126		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB156		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB157		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB167		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB169		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
PCB170		1031.9	ND	0.000	0.001	967.7	ND	0.001	0.001
PCB180		1031.9	2600	0.003	0.001	967.7	ND	0.001	0.001
PCB189		1031.9	ND	0.000	0.000	967.7	ND	0.001	0.000
Total	1000.0			0.291	0.000			0.000	0.058

Parameter	7/27/2005 Sample Volume (liters)	7/27/2005 pg Raw Data	7/27/2005 ppb Calc. Data	7/27/2005 5-Day Average	7/28/2005 Sample Volume (liters)	7/28/2005 pg Raw Data	7/28/2005 ppb Calc. Data	7/28/2005 5-Day Average
PCB 4	1038.5	13000	0.013	0.032	989.3	28000	0.028	0.026
PCB 15	1038.5	3300	0.002	0.008	989.3	6000	0.006	0.006
PCB18	1038.5	15000	0.014	0.056	989.3	45000	0.045	0.047
PCB28	1038.5	9900	0.010	0.037	989.3	28000	0.028	0.032
PCB31	1038.5	11000	0.011	0.048	989.3	34000	0.034	0.040
PCB77	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB81	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB105	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001
PCB114	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB118	1038.5	1200	0.001	0.003	989.3	2200	0.002	0.003
PCB123	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB126	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB156	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB157	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB167	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB169	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB170	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
PCB180	1038.5	ND	0.000	0.002	989.3	ND	0.001	0.001
PCB189	1038.5	ND	0.000	0.000	989.3	ND	0.001	0.000
Total			0.000	0.058			0.000	0.058

Parameter	7/29/2005 Sample Volume (liters)	7/29/2005 pg Raw Data	7/29/2005 ppb Calc. Data	7/29/2005 5-Day Average	7/30/2005 Sample Volume (liters)	7/30/2005 pg Raw Data	7/30/2005 ppb Calc. Data	7/30/2005 5-Day Average
PCB 4	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.058			0.000	0.000

Parameter	7/31/2005 Sample Volume (liters)	7/31/2005 pg Raw Data	7/31/2005 ppb Calc. Data	7/31/2005 5-Day Average
PCB 4	0.0		#DIV/0!	#DIV/0!
PCB 15	0.0		#DIV/0!	#DIV/0!
PCB18	0.0		#DIV/0!	#DIV/0!
PCB28	0.0		#DIV/0!	#DIV/0!
PCB31	0.0		#DIV/0!	#DIV/0!
PCB77	0.0		#DIV/0!	#DIV/0!
PCB81	0.0		#DIV/0!	#DIV/0!
PCB105	0.0		#DIV/0!	#DIV/0!
PCB114	0.0		#DIV/0!	#DIV/0!
PCB118	0.0		#DIV/0!	#DIV/0!
PCB123	0.0		#DIV/0!	#DIV/0!
PCB126	0.0		#DIV/0!	#DIV/0!
PCB156	0.0		#DIV/0!	#DIV/0!
PCB157	0.0		#DIV/0!	#DIV/0!
PCB167	0.0		#DIV/0!	#DIV/0!
PCB169	0.0		#DIV/0!	#DIV/0!
PCB170	0.0		#DIV/0!	#DIV/0!
PCB180	0.0		#DIV/0!	#DIV/0!
PCB189	0.0		#DIV/0!	#DIV/0!
Total			0.000	0.000

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
AMBIENT AIR MONITORING RESULTS
Semi Volatiles

Week of 07/11/05

Parameter	Limit	7/11/2005 Sample Volume (liters)	7/11/2005 ng Raw Data	7/11/2005 ug/m3 Calc. Data	7/11/2005 5-Day Average	7/12/2005 Sample Volume (liters)	7/12/2005 ng Raw Data	7/12/2005 ug/m3 Calc. Data	7/12/2005 5-Day Average	7/13/2005 Sample Volume (liters)	7/13/2005 ng Raw Data	7/13/2005 ug/m3 Calc. Data	7/13/2005 5-Day Average
Acenapthene	1875.0	No Sample		#VALUE!	4.922	No Sample		########	4.922	990.7	1700	1.716	3.454
Acenapthylene	1875.0	No Sample		#VALUE!	0.803	No Sample		########	0.803	990.7	ND	0.252	0.702
Anthracene	9376.0	No Sample		#VALUE!	0.448	No Sample		########	0.448	990.7	ND	0.252	0.362
Benzo(a)anthracene	4.0	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Benzo(b)flouranthene	4.0	No Sample		#VALUE!	0.291	No Sample		########	0.291	990.7	ND	0.252	0.293
Benzo(k)flouranthene	35.0	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Benzo(ghi)perylene		No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Benzo(a)pyrene	0.4	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Benzo(e)pyrene		No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Chrysene	355.0	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Dibenzo(a,h)anthracene	0.4	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Flouranthene	1250.0	No Sample		#VALUE!	2.294	No Sample		########	2.294	990.7	1200	1.211	1.815
Flourene	1250.0	No Sample		#VALUE!	5.555	No Sample		########	5.555	990.7	2300	2.322	4.675
Indeno(1,2,3-cd)pyrene	4.0	No Sample		#VALUE!	0.245	No Sample		########	0.245	990.7	ND	0.252	0.248
Napthalene	30.0	No Sample		#VALUE!	17.336	No Sample		########	17.336	990.7	5900	5.955	16.100
Phenanthrene	9376.0	No Sample		#VALUE!	12.000	No Sample		########	12.000	990.7	6700	5.754	8.881
Pyrene	938.0	No Sample		#VALUE!	1.561	No Sample		########	1.561	990.7	770	0.777	1.327

Parameter	7/14/2005 Sample Volume (liters)	7/14/2005 ng Raw Data	7/14/2005 ug/m3 Calc. Data	7/14/2005 5-Day Average	7/15/2005 Sample Volume (liters)	7/15/2005 ng Raw Data	7/15/2005 ug/m3 Calc. Data	7/15/2005 5-Day Average	7/16/2005 Sample Volume (liters)	7/16/2005 ng Raw Data	7/16/2005 ug/m3 Calc. Data	7/16/2005 5-Day Average	7/17/2005 Sample Volume (liters)	7/17/2005 ng Raw Data	7/17/2005 ug/m3 Calc. Data	7/17/2005 5-Day Aver
Acenapthene	979.1	1400	1.430	3.502	973.4	2300	2.363	3.715	1020.5	7800	7.643	2.826	964.2	8000	8.297	4.
Acenapthylene	979.1	ND	0.255	0.704	973.4	ND	0.257	0.705	1020.5	940	0.921	0.387	964.2	1000	1.037	0.
Anthracene	979.1	ND	0.255	0.383	973.4	ND	0.257	0.365	1020.5	650	0.637	0.330	964.2	700	0.726	0.
Benzo(a)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Benzo(b)flouranthene	979.1	ND	0.255	0.295	973.4	ND	0.257	0.296	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Benzo(k)flouranthene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Benzo(ghi)perylene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Benzo(a)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Benzo(e)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Chrysene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Dibenzo(a,h)anthracene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0.
Flouranthene	979.1	990	1.011	1.681	973.4	1500	1.541	1.769	1020.5	3500	3.430	1.878	964.2	4100	4.252	2.
Flourene	979.1	1800	1.838	4.627	973.4	3100	3.185	4.804	1020.5	10000	9.799	3.789	964.2	9200	9.542	5
Indeno(1,2,3-cd)pyrene	979.1	ND	0.255	0.248	973.4	ND	0.257	0.249	1020.5	ND	0.245	0.252	964.2	ND	0.259	0
Napthalene	979.1	4200	4.290	15.087	973.4	5600	5.753	12.835	1020.5	9000	8.819	7.162	964.2	6900	7.156	8
Phenanthrene	979.1	4200	4.290	8.093	973.4	6000	6.164	8.405	1020.5	24000	23.518	9.204	964.2	21000	21.780	12
Pyrene	979.1	630	0.643	1.237	973.4	1100	1.130	1.313	1020.5	2600	2.548	1.340	964.2	2800	2.904	1

Week of 07/18/05

Parameter	Limit	7/18/2005 Sample Volume (liters)	7/18/2005 ng Raw Data	7/18/2005 ug/m3 Calc. Data	7/18/2005 5-Day Average	7/19/2005 Sample Volume (liters)	7/19/2005 ng Raw Data	7/19/2005 ug/m3 Calc. Data	7/19/2005 5-Day Average	7/20/2005 Sample Volume (liters)	7/20/2005 ng Raw Data	7/20/2005 ug/m3 Calc. Data	7/20/2005 5-Day Average
Acenapthene	1875.0	1000.3	8300	8.298	6.606	1041.4	5600	5.377	6.396	1024.4	4900	4.783	6.880
Acenapthylene	1875.0	1000.3	1200	1.200	0.734	1041.4	990	0.951	0.873	1024.4	ND	0.244	0.871
Anthracene	9376.0	1000.3	990	0.990	0.573	1041.4	820	0.787	0.679	1024.4	710	0.693	0.707
Benzo(a)anthracene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(b)flouranthene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(k)flouranthene	35.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(ghi)perylene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(a)pyrene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Benzo(e)pyrene		1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Chrysene	355.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Dibenzo(a,h)anthracene	0.4	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Flouranthene	1250.0	1000.3	4300	4.299	2.907	1041.4	4700	4.513	3.007	1024.4	3800	3.709	4.041
Flourene	1250.0	1000.3	11000	10.997	7.072	1041.4	8700	8.354	8.375	1024.4	5800	5.662	8.671
Indeno(1,2,3-cd)pyrene	4.0	1000.3	ND	0.250	0.253	1041.4	ND	0.240	0.250	1024.4	ND	0.244	0.248
Napthalene	30.0	1000.3	12000	11.996	7.603	1041.4	6800	6.530	8.061	1024.4	4700	4.588	7.818
Phenanthrene	9376.0	1000.3	30000	29.991	17.148	1041.4	26000	24.966	21.284	1024.4	23000	22.452	24.541
Pyrene	938.0	1000.3	3300	3.299	2.105	1041.4	3700	3.553	2.687	1024.4	3100	3.026	3.066

Parameter	7/21/2005 Sample Volume (liters)	7/21/2005 ng Raw Data	7/21/2005 ug/m3 Calc. Data	7/21/2005 5-Day Average	7/22/2005 Sample Volume (liters)	7/22/2005 ng Raw Data	7/22/2005 ug/m3 Calc. Data	7/22/2005 5-Day Average	7/23/2005 Sample Volume (liters)	7/23/2005 ng Raw Data	7/23/2005 ug/m3 Calc. Data	7/23/2005 5-Day Average	7/24/2005 Sample Volume (liters)	7/24/2005 ng Raw Data	7/24/2005 ug/m3 Calc. Data	7/24/2005 5-C Aver
Acenapthene	989.0	1900	1.921	6.735	979.5	7800	7.963	5.669	1028.7	8100	7.874	5.584	1024.9	8800	8.586	6
Acenapthylene	989.0	ND	0.253	0.737	979.5	ND	0.255	0.580	1028.7	ND	0.243	0.389	1024.9	ND	0.244	0
Anthracene	989.0	ND	0.253	0.690	979.5	ND	0.255	0.506	1028.7	680	0.661	0.530	1024.9	8900	8.684	2
Benzo(a)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Benzo(b)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Benzo(k)flouranthene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Benzo(ghi)perylene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Benzo(a)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Benzo(e)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Chrysene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Dibenzo(a,h)anthracene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Flouranthene	989.0	2400	2.427	3.840	979.5	1600	1.633	3.316	1028.7	3200	3.111	3.079	1024.9	7000	6.830	3
Flourene	989.0	3300	3.337	7.578	979.5	7500	7.657	7.201	1028.7	7900	7.680	6.538	1024.9	10000	9.757	6
Indeno(1,2,3-cd)pyrene	989.0	ND	0.253	0.249	979.5	ND	0.255	0.248	1028.7	ND	0.243	0.247	1024.9	ND	0.244	0
Napthalene	989.0	5400	5.460	7.148	979.5	16000	16.335	8.982	1028.7	12000	11.665	8.916	1024.9	18000	17.563	11
Phenanthrene	989.0	12000	12.133	22.265	979.5	15000	15.314	20.971	1028.7	23000	22.358	19.445	1024.9	31000	30.247	20
Pyrene	989.0	1600	1.618	2.880	979.5	1600	1.633	2.626	1028.7	3000	2.916	2.549	1024.9	4400	4.293	2

Week of 07/25/05

Parameter	Limit	7/25/2005 Sample Volume (liters)	7/25/2005 ng Raw Data	7/25/2005 ug/m3 Calc. Data	7/25/2005 5-Day Average	7/26/2005 Sample Volume (liters)	7/26/2005 ng Raw Data	7/26/2005 ug/m3 Calc. Data	7/26/2005 5-Day Average	7/27/2005 Sample Volume (liters)	7/27/2005 ng Raw Data	7/27/2005 ug/m3 Calc. Data	7/27/2005 5-Day Average
Acenapthene	1875.0	1031.9	6900	6.687	6.600	967.7	2000	2.067	6.821	1038.5	6600	6.355	6.500
Acenapthylene	1875.0	1031.9	1300	1.260	0.451	967.7	750	0.775	0.555	1038.5	2100	2.022	0.909
Anthracene	9376.0	1031.9	840	0.814	2.133	967.7	ND	0.258	2.134	1038.5	650	0.626	2.200
Benzo(a)anthracene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(b)flouranthene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(k)flouranthene	35.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(ghi)perylene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(a)pyrene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Benzo(e)pyrene		1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Chrysene	355.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Dibenzo(a,h)anthracene	0.4	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Flouranthene	1250.0	1031.9	5000	4.845	3.780	967.7	1000	1.033	3.077	1038.5	1100	1.059	3.502
Flourene	1250.0	1031.9	9200	8.916	7.400	967.7	4200	4.340	7.070	1038.5	6300	6.066	7.352
Indeno(1,2,3-cd)pyrene	4.0	1031.9	ND	0.242	0.247	967.7	ND	0.258	0.249	1038.5	ND	0.241	0.246
Napthalene	30.0	1031.9	16000	15.505	13.300	967.7	10000	10.334	14.280	1038.5	36000	34.665	17.046
Phenanthrene	9376.0	1031.9	27000	26.165	21.244	967.7	10000	10.334	20.884	1038.5	9400	9.052	19.631
Pyrene	938.0	1031.9	3800	3.683	2.820	967.7	1500	1.550	2.815	1038.5	1000	0.963	2.681

Parameter	7/28/2005 Sample Volume (liters)	7/28/2005 ng Raw Data	7/28/2005 ug/m3 Calc. Data	7/28/2005 5-Day Average	7/29/2005 Sample Volume (liters)	7/29/2005 ng Raw Data	7/29/2005 ug/m3 Calc. Data	7/29/2005 5-Day Average	7/30/2005 Sample Volume (liters)	7/30/2005 ng Raw Data	7/30/2005 ug/m3 Calc. Data	7/30/2005 5-Day Average	7/31/2005 Sample Volume (liters)	7/31/2005 ng Raw Data	7/31/2005 ug/m3 Calc. Data	7/31/2005 5-D Aver
Acenapthene	989.3	9700	9.805	6.886	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Acenapthylene	989.3	1900	1.921	1.244	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Anthracene	989.3	580	0.586	2.194	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(a)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(b)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(k)flouranthene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(ghi)perylene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(a)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Benzo(e)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Chrysene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Dibenzo(a,h)anthracene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Flouranthene	989.3	2400	2.426	3.425	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Flourene	989.3	10000	10.108	7.837	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Indeno(1,2,3-cd)pyrene	989.3	ND	0.253	0.248	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Napthalene	989.3	30000	30.324	21.678	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Phenanthrene	989.3	21000	21.227	19.405	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D
Pyrene	989.3	2000	2.022	2.502	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#DIV/0!	0.0		#DIV/0!	#D

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 • SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address | Location If Different

A. Illinois Manifest Document Number IL 1312761 FEE PAID IF APPLICABLE

B. Generator's ID Number IL8 8 0 1 9 9 9 9

C. Transporter's ID Number UPM 0 3 1 6 0 0 0

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

5. Transporter 1 Company Name | 6. US EPA ID Number

D. Transporter's Phone ( )

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address | 10. US EPA ID Number

G. Facility's IL ID Number 0 3 1 1 2 5 9 9 9 1

H. Facility's Phone ( )

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.			1500		EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Date Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date Month Day Year 8 1 5 0

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date Month Day Ye

In case of a spill call the Illinois Office of Emergency Response at ...

...1991 that this information be submitted to the Agency. Failure to provid... result in a fine up to $50,00...

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 271

DATE 16 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 61 °F, Max 82 °F, No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
DLZ was on site to perform miscellaneous surveying. EQ performed miscellaneous site cleanup. No dredge spoil remains on site and air monitoring was not performed.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston ECM, Ed Wise ECM, three security guards from Task Force, two surveyors from DLZ, and one operator from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued; Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 271

DATE 16 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	2.0	12.0
EOM	SAFETY ENGINEER - ON SITE	1.0	8.0
EOM	SUPER - JOB	1.0	8.0
EOM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	6.0	44.0

Total hours worked to date: 5,500.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CRC2136	Small Excavator	0.0	8.0
	Total	8.0	8.0

Total operating hours to date: 1,080.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/17/5		8-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 272 Page 1 of 2 DATE 17 Aug 2005 - Wednesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 61 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ performed miscellaneous site cleanup. No dredge spoil remains on site and air monitoring was not performed.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, three security guards from Task Force, and one operator from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 272

DATE 17 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
BQM	SAFETY ENGINEER - ON SITE	1.0	8.0
BQM	SUPER - JOB	1.0	8.0
BQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	4.0	32.0

Total hours worked to date: 5,532.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	8.0	0.0
6CRC2136	Small Excavator	0.0	8.0
	Total	8.0	8.0

Total operating hours to date: 1,088.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/18/5		8-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 273

DATE 18 Aug 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 73 °F, Max 84 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ performed miscellaneous site cleanup. No dredge spoil remains on site and air monitoring was not performed.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ed Wise EQM, three security guards from Task Force, and one operator from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 273

DATE 18 Aug 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	5,564.0	Total	4.0	32.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 1,096.0		Total	8.0	8.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/19/5	William Bm	8-19-05

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 277 Page 1 of 2 DATE 22 Aug 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 73 °F, Max 86 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher assembled the work platform for the cable saw. Five of the pull ropes were also installed by the Thatcher divers. EQ performed miscellaneous site cleanup. No dredge spoil remains on site and air monitoring was not performed.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from ONYX (Thatcher sub), two personnel from Roughneck (Thatcher sub), and one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 277

DATE 22 Aug 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		2.0	16.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGEMT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	5,708.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date: 1,120.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Ave In Harbor Canal Pipe Removal

JOB NO: 072

DATE: 8-22-85

VIS:

TEMP:

DIVER: Villarreal

B.O. 2600
Stby 3100
Rack 3000

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	SI		Depth	
LS	1742	NG	LS	NG		LS	
LB	1403	RNT	LB	RNT		LB	
BT	181		BT			ST	
DECO			RNT +			RNT +	
RS	1404		TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Down Locating Pipe w Jet and Running Guide Ropes Back to Surface in order to pull Saw wire around pipe. Completed 5 location Riverside!

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

mon
-22.05

: Special Services, Inc — MARINE SERVICES — Job Safety Analysis

Contact: Tom Scherfer
Date:
Time JSA Completed: 0920
Person Initiating JSA:
Emergency Shower and Eyewash Location: On work site / Trailer (Thacher)

/Unit: In Harbor & Canal
nergency #:
sor's Name:
Number 140159E.05 072 Job Description:

f Permit Required: No Burning @ this Time.
eral Safe Work Permit [ ] Hot Work Permit [ ] Confined Space Permit
avation Permit [ ] No Permit Required [ ] Other:

ency Data:
Direction: Out of NW
lary Evacuation Point: E Q Trailer
tinguisher Available: Yes
Primary Evacuation Point: Thatcher Trailer
Backup Emergency Communications:
Inspection Date: Is Pin Intact: [ ] Yes [ ] No

Place an "X" next to each item needed for the job.

ıal Protective Equipment (PPE) Assessment Checklist:
ıd Face Protection (Needed for the Job):
ety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:
Protection:
d Hat ( ) Welding Shied [ ] Other:
'rotection (Needed for the Job):
er Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather
Protection (Needed for the Job):
ther Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:
ng Protection: [X] Ear Plugs [ ] Ear Muffs [ ] Other: Fluorescing around Equipment
ctive Clothing (Needed for the Job):
ntaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
)MEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:
#1 Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other
#1 Bailout PSI 3000 Communications OK
#2 Helmet ( ) Superlite ( ) Miller [X] Desco ( ) Band mask ( ) Aga ( ) other
#2 Bailout PSI Communications
#3 Helmet ( ) Superlite ( ) Miller ( ) Desco ( ) Band mask ( ) Aga ( ) other
#3 Bailout PSI Communications
#4 Helmet ( ) Superlite ( ) Miller ( ) Desco ( ) Band mask ( ) Aga ( ) other
#4 Bailout PSI Communications
itional Back-up Air Supply PSI 3000 Location Rack Additional Back-up Air Supply PSI N/A Location
Additional Back-up Air Supply PSI Location

ed Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

nyx Confined Space Procedures been explained to entire crew [ ] Yes [ ] No **If no, review now

nfined Space Evaluation been Conducted and Signed by Entire Crew N/A [ ] Yes [ ] No

Equipment: Are the following conditions met Place an "X" next to each item needed for the job

quipment Fueled

e all bail-out bottle been gauge.

e communications been tested in dive helmets.

Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A

lders installed and secured in place.

np Equipment checked out N/A

ses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.

Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
s: Fall Protection, Breaking the Plane of a ned Space, Uneven & Elevated Surfaces, etc.)	Piping on Ground * uneven Ground	Don't run on Site / carefu!
nicals/Materials: In immediate Area or Brought te for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver near pit
ronment: Area Barricaded, Noise, Weather, Wind tion, Lighting, Heat, Hazardous Atmosphere, etc.	Watch Wind Change, Divers Intake	Compresson Intake
ical: Body Positioning, Wind Direction, Pinch s, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane lifts	Diver & Surface personnal be carefu!
ntial (Stored) Energy: Lockout/Tagout in Place, I Tested and Used, Power Lines, Static Elect., etc.		
s/Equipment: Hazards of Tools, Heavy hinery, Pumps, Jetting equip. etc.	Jetting in water	Dive be careFull of Jet action
Folding: Scaffold Tagged, Pre-shift Inspection tag, Inspected, Fall Protection, etc.	Ladders	3 Point Contact when using
er: List any Other Hazards that may be Present on r Job (i.e. Pinch Points, Tripping Hazards).	River Walls	Life Jackets within 4' of Wall.

Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or stance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

AVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO L SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

2-2-06

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:17:26 22-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:17:26 Aug 22
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:17:26 Aug 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Aug	09:22:26	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:14:33 22-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.258 mg/m³
Time at maximum: 11:14:36 Aug 22
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 11:15:03 Aug 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Aug	11:19:33	0.004

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:07:50 22-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:07:50 Aug 22
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:07:50 Aug 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Aug	13:12:50	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 2
Start time and date: 14:54:26 22-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.090 mg/m³
Time at maximum: 14:54:27 Aug 22
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:54:26 Aug 22
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22-Aug	14:59:26	0.001

SAMPLING EQUIPMENT CALIBRATION LOG

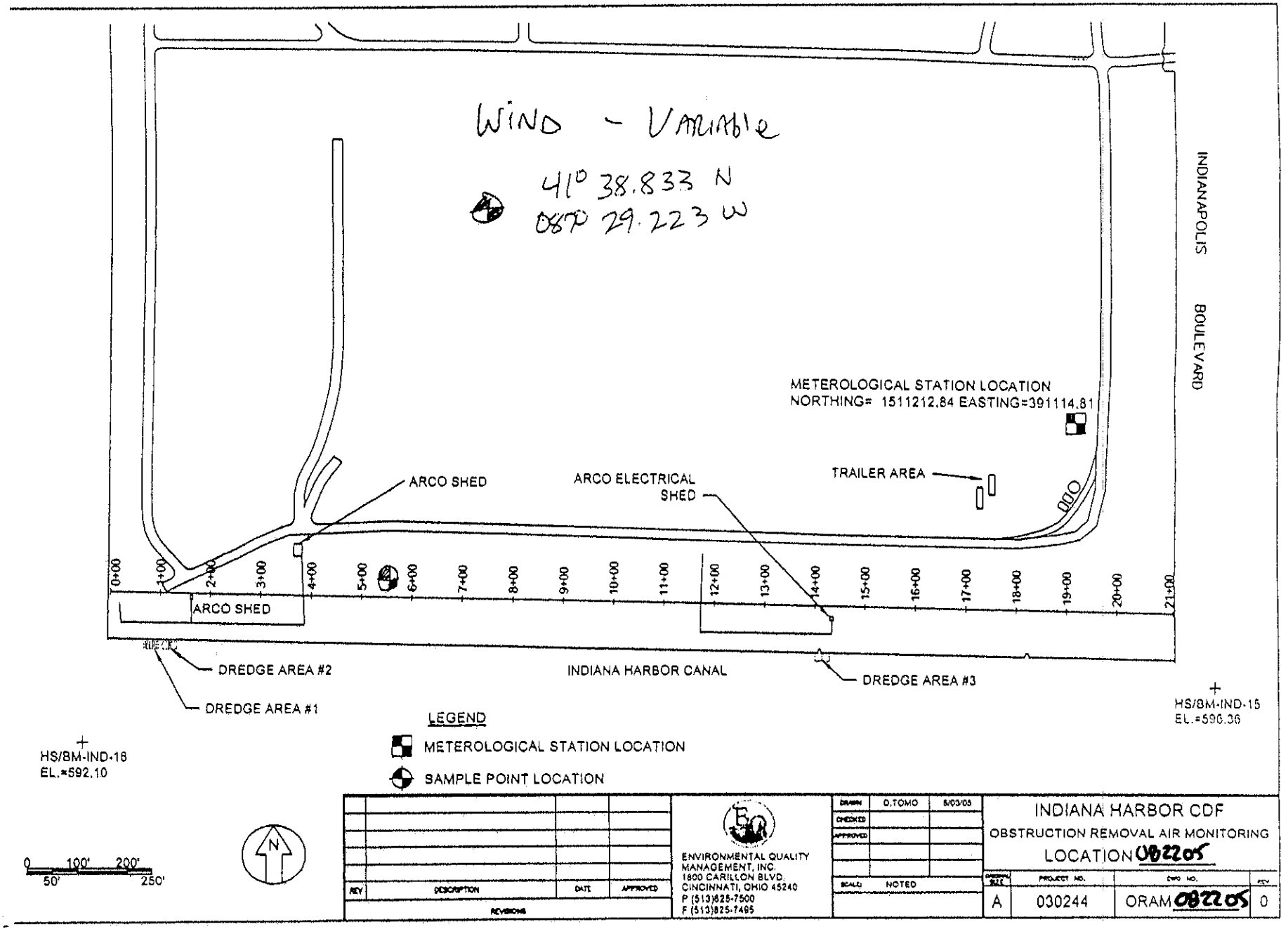
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-22-05 0800	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, NE wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-22-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	5/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION 082205

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 082205	0

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:45 AM	Mostly Cloudy 70°F	70°F	63°F	78%	10.0 miles	30.00	From NNE 12mph
5:50 AM	Mostly Cloudy 66°F	66°F	59°F	78%	10.0 miles	30.01 ↑	From E 12mph
Sunrise at 6:06 AM							
6:50 AM	Partly Cloudy 66°F	66°F	57°F	73%	Unlimited	30.03 ↑	From NE 12mph
8:50 AM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30.05 ↑	From NE 9mph
9:50 AM	Cloudy 70°F	70°F	59°F	68%	Unlimited	30.06 ↑	Variable 6mph
10:50 AM	Cloudy 70°F	70°F	63°F	78%	Unlimited	30.07 ↑	Variable 6mph
11:50 AM	Mostly Cloudy 73°F	73°F	59°F	61%	Unlimited	30.06 ↓	From N 14mph
12:50 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.06 →	From N 14mph
2:50 PM	Mostly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.06	From N 12mph
3:50 PM	N/A 70°F	70°F	57°F	64%	N/A	30.05 ↓	From N 12mph
4:50 PM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.04 ↓	From N 9mph
5:50	Mostly Cloudy	70°F	59°F	68%	Unlimited	30.04 →	From NNE

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- Hot weather lawn & garden car
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PM	70°F						12mph
6:50 PM	Mostly Cloudy 70°F	70°F	59°F	68%	Unlimited	30 02 ↓	From NNE 9mph
Sunset at 7:39 PM							
7:50 PM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30 03 ↑	From NNE 9mph
8:50 PM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30 04 ↑	From NNE 9mph
9:50 PM	Mostly Cloudy 70°F	70°F	61°F	73%	Unlimited	30 04 →	From NNE 9mph

Back to previous page

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Know whal your car sl

Summer Adventure
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Travel
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Find your here!

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 278

DATE 23 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Min 61 °F, Max 73 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The remaining pull ropes were installed by ONYX for the pipe cuts on the south end. Roughneck set up and was able to cut one pipe with the cable saw. EQ started demolition of the dewatering cell and assisted Thatcher.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from ONYX (Thatcher sub), two personnel from Roughneck (Thatcher sub), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 278

DATE 23 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		2.0	16.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	5,820.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 1,136.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	8/24/5		8-25-05

Indiana Harbor Obstruction Removal 8/23/05

Safety Report For Set up and operations of Roughneck's Wire Saw

Prior to the starting the wire saw, an activity specific safety meeting was held to discuss potential hazards associated with operating the saw and control measures for each hazard. The number one concern while operating the saw is personnel coming into contact with the wire or being hit by the wire if it breaks. In order to prevent this, no divers are to be in the water while the saw is running, only necessary personnel are to be in the work area (on the platform), and all personnel will wear level D PPE as well as a personal flotation device. Another possible hazard is the wooden work platform bowing too much or breaking from pressure on the cable. The Saw operator, who has control of all switches on a control panel while the saw is on, will monitor the pressure on the platform. A third potential hazard is a rupture in the hydraulic lines that run the saw. The saw operator will monitor pressure in the lines and oil absorbent boom and pads will be on hand at the work site in the event of a broken line. A final concern is skin contact with polluted water. Any personnel touching any item that has been in the water will wear rubber gloves or the item will be cleaned prior to touching that item with bare hands.

Attached are a safety meeting attendance roster and an Activity Hazard Analysis for this task.

EQ TRAINING/MEETING RECORD

Location/Site: Indiana Harbor Project No.: 030244

Date: 8/23/05 Time: 1100 am/pm to 1530 am/pm

Instructor(s): Benlotny [illegible] (Print Name) (Signature) STEVE SULLIVAN [illegible] (Print Name) (Signature) Roughneck

Type of meeting (Circle all that apply):

Project Staff	~~Departmental~~ Safety	Audio/Visual Classroom	O.J.T. Other:

Subject/Program: Wire Cutting Pipes

Handout(s):

Proceedings: Nobody in water while saw running. Potential Cable break. Operator or 1 Hand only on work platform; use Rubber Gloves when handling Cable or any other Item that touches water; Boom on Hand in case of hyraulic break Potential for Platform to Boom - carried by saw operator.

ATTENDANCE ROSTER

I have received instruction/participated in the subject/program as described above and have had the opportunity to ask questions and receive answers on the contents of the program. I understand the training I have received and agree to abide by the standards presented herein I also acknowledge receipt of any handout materials described above.

EMPLOYEE SIGNATURE	EMPLOYEE NAME (print)	REPRESENTING/SS NO.
1. [illegible]	Sam Carrico	CST
2. [illegible]	Juan Rodriguez	CST
3. [illegible]	Ed Stavitts	Thatcher
4. [illegible]	ARTHUR RUDZAITIS	USACE
5. [illegible]	RICH McFARLAND	THATCHER
6. [illegible]	Jack Beaudoin	Thatcher
7. [illegible]	Joe Villarreal	Thatcher
8. [illegible]	Clint Huber	Thatcher
9.		

ACTIVITY HAZARD ANALYSIS - Cutting Pipes with Wire Saw

Task Breakdown	Potential Hazard	Hazard Control Measure
Setting up wire saw and pulleys	Failed Rigging Falling into water	° Inspect and replace rigging as needed ° Use proper PPE-safety glasses, hard hat, steel-toed boots, personal flotation device ° Life ring in work area
	Pinch Points	° Identify possible pinch points
	Parts Falling into Water	° Provide and wear work gloves
Energizing Saw	Hydraulic Lines Breaking	° Monitor pressure in lines ° Operator mans control console at all times while saw is running ° Have oil absorbents on hand
Cutting Pipes	Breaking wire	° Maintain safe distance from cutting area ° Wear proper PPE
	Flying debris	° Maintain safe distance from cutting area ° Wear proper PPE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:31:23 23-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.063 mg/m³
Time at maximum: 09:31:48 Aug 23
Max STEL Concentration: 0.002 mg/m³
Time at max STEL: 09:33:53 Aug 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Aug	09:36:23	0.01

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:43:58 23-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.051 mg/m³
Time at maximum: 11:45:08 Aug 23
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 11:48:58 Aug 23
Overall Avg Conc: 0.025 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Aug	11:48:58	0.024

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:35:31 23-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.298 mg/m³
Time at maximum: 14:37:56 Aug 23
Max STEL Concentration: 0.115 mg/m³
Time at max STEL: 14:42:31 Aug 23
Overall Avg Conc: 0.246 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Aug	14:40:31	0.256

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:31:53 23-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.059 mg/m³
Time at maximum: 15:32:03 Aug 23
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:31:53 Aug 23
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	23-Aug	15:36:53	0.002

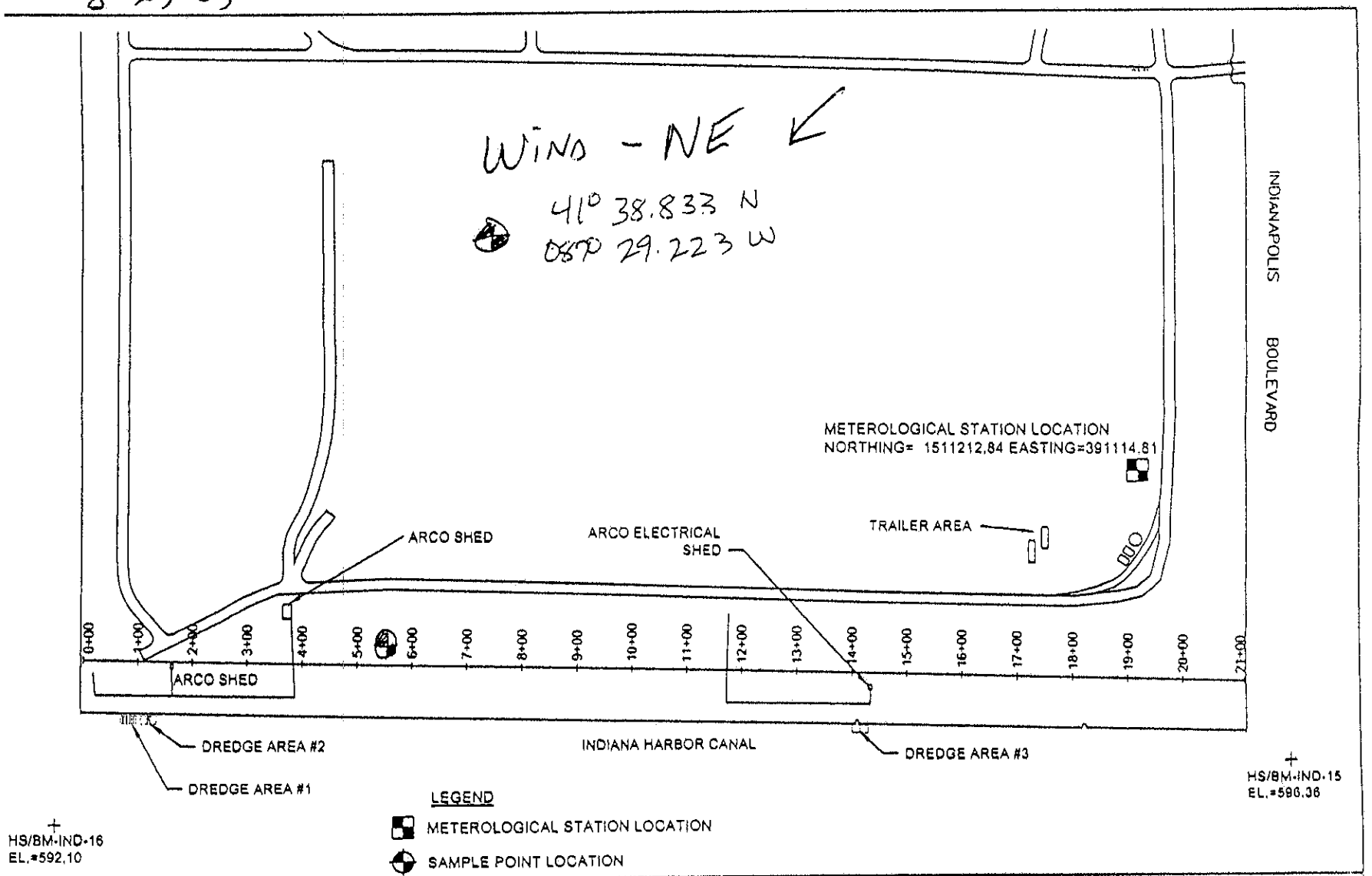
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 0302414

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
082305 0813	PDR	[illegible]	2010 Calibration	"Cal OK"	Sunny, Warm

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-23-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION 082305

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM 082305	0

The Weather Channel

8-23-05

Local Weather Enter city or US zip See weather related to ... GO

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:45 AM	Partly Cloudy 63°F	63°F	55°F	77%	10.0 miles	30.08	Variable 3mph
5:50 AM	Partly Cloudy 61°F	61°F	55°F	82%	Unlimited	30.09 ↑	Variable 7mph
Sunrise at 6:07 AM							
6:50 AM	Partly Cloudy 64°F	64°F	57°F	77%	Unlimited	30.10 ↑	Variable 7mph
7:55 AM	Partly Cloudy 68°F	68°F	59°F	73%	Unlimited	30.11 ↑	From E 9mph
8:50 AM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.13 ↑	From E 9mph
9:45 AM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.12 ↓	From NE 8mph
10:50 AM	Partly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.14 ↑	From NE 12mph
11:50 AM	Mostly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.13 ↓	From NNE 13mph
12:50 PM	Mostly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.13 →	From ENE 10mph
1:50 PM	Mostly Cloudy 73°F	73°F	59°F	61%	Unlimited	31.02 ↑	From NNE 10mph
2:50 PM	Mostly Cloudy 72°F	72°F	57°F	60%	Unlimited	30.11 ↓	From NE 13mph

Today in East Chicago

- Exercise tips to beat the heat
- Allergy outlook & pollen counts
- Hot weather lawn & garden car
- Weekend grilling & cookout for
- Live local traffic reports

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Special Offers in East Chic

Chicago

3:50 PM	Partly Cloudy 73°F	73°F	57°F	57%	Unlimited	30.11 →	From NNE 9mph
4:50 PM	Partly Cloudy 72°F	72°F	55°F	57%	Unlimited	30.11 →	From NNE 12mph
5:50 PM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.10 ↓	From NNE 12mph
6:50 PM	Partly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.10 →	From NNE 9mph

Sunset at 7:37 PM

7:50 PM	Mostly Cloudy 70°F	70°F	57°F	64%	Unlimited	30.10 →	From NNE 9mph
8:50 PM	Mostly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.10 →	From ENE 9mph
9:50 PM	Partly Cloudy 70°F	70°F	55°F	60%	Unlimited	30.11 ↑	From ENE 12mph

Back to previous page

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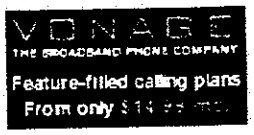

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NEW: PetCast

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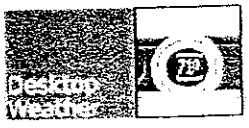


FREE wea on your de

Travel

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Eng. JOB NO: 072 DATE: 8-24-85

VIS: TEMP:

B.O. 2500 PSI

DIVER: V. Hanrad

Rack 2900 PSI.

DIVE 1		DIVE 2		DIVE 3	
Depth	30	Depth	30	Depth	30
LS	0823	LS	0946	LS	1145
LB	0841	LB	1031	LB	1316
BT	22 min	BT	45 min	BT	88 min
DECO		RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	min
TBL		RS		RS	155 TBT
		RG		RG	
		TBL		TBL	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

REMARKS: Dive down to Find Saw wire & Return it to Hydradic Machine.

Stby 3100.

DIVER: Stowitts.

DIVE 1		DIVE 2		DIVE 3	
Depth	30	Depth		Depth	
LS	1352	LS		LS	
LB	1454	LB		LB	
BT	62	BT		BT	
DECO	62 min TBT	RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	
TBL		RS		RS	
		RG		RG	
		TBL		TBL	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

REMARKS: Diver Down Checking & Rigging up 10" to Break with Crane. (Breakup a plant.)

DIVER:

DIVE 1		DIVE 2		DIVE 3	
Depth		Depth		Depth	
LS		LS		LS	
LB		LB		LB	
BT		BT		BT	
DECO		RNT +		RNT +	
RS		TBT =		TBT =	
RG		DECO		DECO	
TBL		RS		RS	
		RG		RG	
		TBL		TBL	
SI		SI		SI	
NG		NG		NG	
RNT		RNT		RNT	

8-22-05 | 8-23-05 | 8-24-05

Onyx Special Services, Inc — MARINE SERVICES — Job Safety Analysis

Plant:
Location/Unit: La Harbor & Canal
Plant Emergency #:
Supervisor's Name:
Project Number 140159E|05 072 Job Description:

Contact: Tom Scherfer
Time JSA Completed: 0920
Emergency Shower and Eyewash Location: On work site / Trailer (Thacher)

Date:
Person Initiating JSA:

Type of Permit Required: No Burning @ this time.
[ ] General Safe Work Permit
[ ] Excavation Permit
[ ] Hot Work Permit
[ ] No Permit Required
[ ] Confined Space Permit
[ ] Other:

Emergency Data:
Wind Direction: Out of NW
Secondary Evacuation Point: E & Trailer
Fire Extinguisher Available: Yes.

Primary Evacuation Point: Thatcher Trailer
Backup Emergency Communications:
Inspection Date:
Is Pin Intact: [ ] Yes [ ] No

Place an "X" next to each item needed for the job

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat ( ) Welding Shied [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Hearing Protection: [X] Ear Plugs [ ] Ear Muffs [ ] Other: Working around Equipment

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Diver #1	Helmet ( ) Superlite	( ) Miller	[X] Desco	( ) Band mask	( ) Aga	( ) other
	Bailout PSI 2600		Communications OK			
Diver #2	Helmet ( ) Superlite	( ) Miller	[X] Desco	( ) Band mask	( ) Aga	( ) other
	Bailout PSI		Communications			
Diver #3	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
	Bailout PSI		Communications			
Diver #4	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
	Bailout PSI		Communications			

Additional Back-up Air Supply PSI 3000 Location Rack
Additional Back-up Air Supply PSI N/a Location
Additional Back-up Air Supply PSI N/a Location
Additional Back-up Air Supply PSI Location

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	N/A [ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

- [X] Is Equipment Fueled
- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/A
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Piping on Ground "uneven Ground	Don't run on Site/carefu
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver near pit
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Watch Wind Change, Divers Intake	Compresson Intake
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane lifts	Diver & Surface personnal be car
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.		
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jetting in water	Dive be careFull of Jetgas
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladders	3 Point Contact when using
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	River Walls	Life Jackets within 4' of Wall

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-22-05	8-22-05	8-22-05	

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 279

DATE 24 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 55 °F, Max 79 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Roughneck Cut three additional pipes on the south end, a total of four have been cut to date. Progress was hindered when the saw bound up near the end of the cuts. CNYX and Thatcher worked at clearing the area to the north in the "jacking" pit in preparation for making those cuts. The crane operator clammed out the four inch conduit fromthis area. It appeared to have been cut by the sheet pile that was installed for the coffer dam. EQ continued demolition of the dewatering cell and assisted Thatcher.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from CNYX (Thatcher sub), two personnel from Roughneck (Thatcher sub), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 279

DATE 24 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		2.0	16.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	5,932.0	Total	14.0	112.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CRC2136	Small Excavator		0.0	8.0
Total operating hours to date:	1,152.0	Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	8/25/5	[signature]	8-25-05

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher JOB NO: 072 DATE: 8-23-85

VIS: TEMP:

80. 2500# Rack 3000#

DIVER: Stewart

DIVE 1			DIVE 2			DIVE 3	
Depth	30'	SI	Depth	SI		Depth	
LS	0844	NG	LS	NG		LS	
LB	1354	RNT	LB	RNT		LB	
BT	130 min		BT			BT	
DECO	TBT		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Diver Location & Rigging Lines to 10" pipe. Under to pull saw wire around;

80. 3100

DIVER: Jack Beaudry

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	70	SI	Depth	
LS	1:49	NG	LS	13:59	NG	LS	
LB	1251	RNT	LB	13:57	RNT	LB	
BT	62 min		BT	18 min		BT	
DECO			RNT +			RNT +	
RS	1252		TBT =			TBT =	
RG			DECO			DECO	
TBL			RS	13:58		RS	
			RG			RG	
			TBL			TBL	

REMARKS: 2 min Wait to Reave cable and Feed line through around pipe

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth	SI		Depth	
LS		NG	LS	NG		LS	
LB		RNT	LB	RNT		LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS

Mon 8-22-05	Tue 8-23-05	8-24-05

Job Safety Analysis

Onyx Special Services, Inc — **MARINE SERVICES**

Plant:
Location/Unit: In Harbor & Canal.
Plant Emergency #:
Supervisor's Name:
Project Number 140159E.05 072 Job Description:

Contact: Tom Scherfer
Time JSA Completed: 0920
Emergency Shower and Eyewash Location: on work site / Trailer (Thatcher)

Date:
Person Initiating JSA:

No Burning @ this time

Type of Permit Required:
[ ] General Safe Work Permit
[ ] Excavation Permit
[ ] Hot Work Permit
[ ] No Permit Required
[ ] Confined Space Permit
[ ] Other:

Emergency Data:
Wind Direction: Out of NW
Secondary Evacuation Point: E & Trailer
Fire Extinguisher Available: Yes.
Primary Evacuation Point: Thatcher Trailer
Backup Emergency Communications:
Inspection Date:
Is Pin Intact: [ ] Yes [ ] No

Place an "X" next to each item needed for the job.

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat ( ) Welding Shied [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather

Hand Protection (Needed for the Job):
[ ] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Hearing Protection: [X] Ear Plugs [ ] Ear Muffs [ ] Other: If working around Equipment

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Diver #1	Helmet ( ) Superlite	( ) Miller	[X] Desco	( ) Band mask	( ) Aga	( ) other
Diver #1	Bailout PSI 3000		Communications OK			
Diver #2	Helmet ( ) Superlite	( ) Miller	[X] Desco	( ) Band mask	( ) Aga	( ) other
Diver #2	Bailout PSI		Communications			
Diver #3	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #3	Bailout PSI		Communications			
Diver #4	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #4	Bailout PSI		Communications			

Additional Back-up Air Supply PSI 3000 Location Rack
Additional Back-up Air Supply PSI N/a Location
Additional Back-up Air Supply PSI N/a Location
Additional Back-up Air Supply PSI Location

Confined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew	[ ] Yes [ ] No	**If no, review now
Has Confined Space Evaluation been Conducted and Signed by Entire Crew	N/A [ ] Yes [ ] No	

Tools/Equipment: Are the following conditions met — Place an "X" next to each item needed for the job.

- [X] Is Equipment Fueled
- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A
- [X] Ladders installed and secured in place.
- [ ] Pump Equipment checked out N/A
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Piping on Ground "Uneven Ground	Don't run on Site / carefu
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oil in Water	Clean Diver near pit
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Watch Wind Change, Divers Intake	Compresson Intake
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane lifts	Diver & Surface personnal be car
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.		
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Jetting in Water	Dive be careFull of Jet Ga
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Ladders	3 Point Contact when usin's
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	River Walls	Life Jackets within 4' of Wall

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-22-05	8-22-05	8-22-05	
Jack Boardman	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:26:58 24-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.140 mg/m³
Time at maximum: 10:31:33 Aug 24
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 10:27:28 Aug 24
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Aug	10:31:58	0.014

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:15:16 24-Aug
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.129 mg/m³
Time at maximum: 12:15:44 Aug 24
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 12:15:46 Aug 24
Overall Avg Conc: 0.008 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Aug	12:20:16	0.01

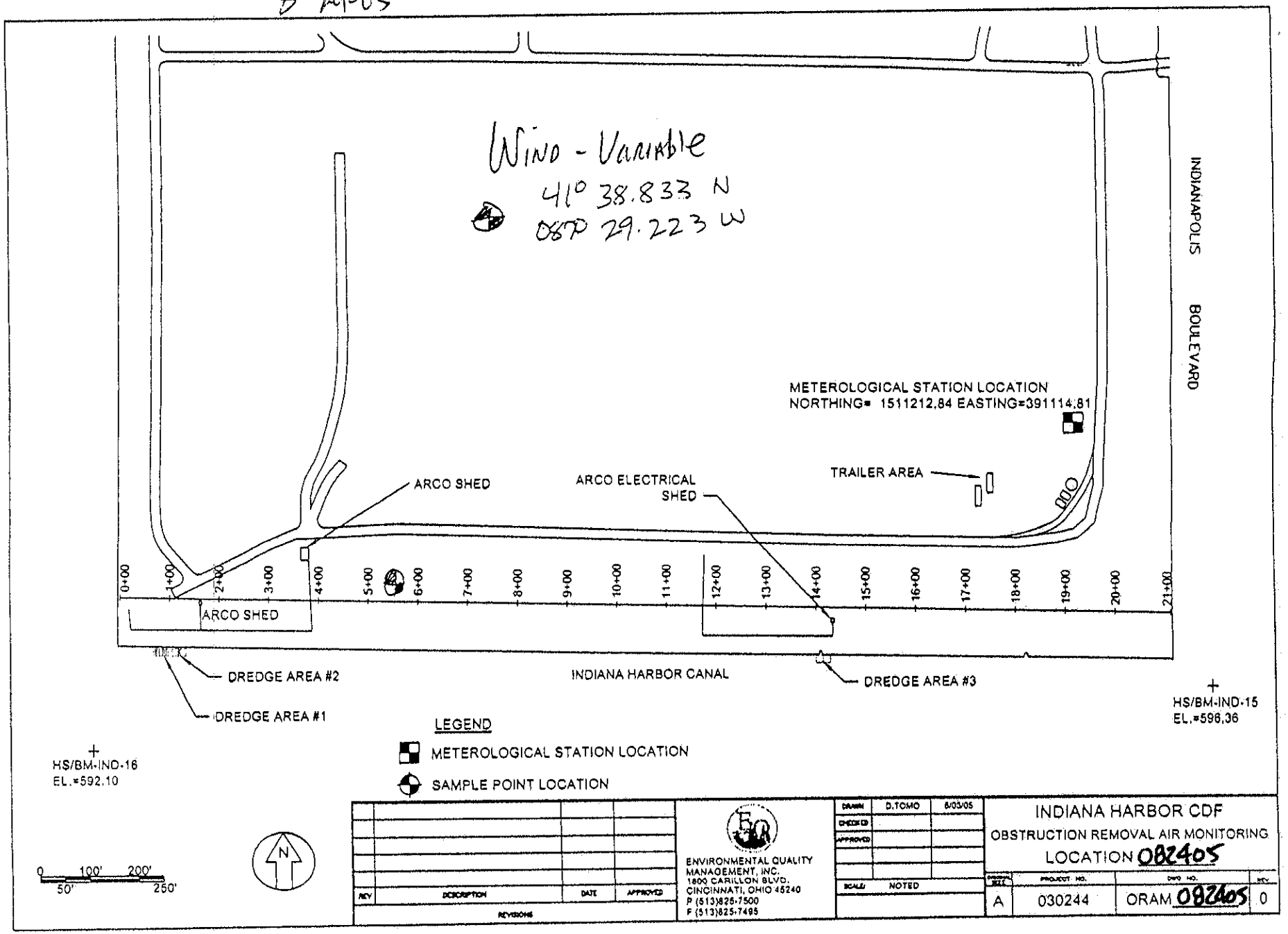
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:34:44 24-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.098 mg/m³
Time at maximum: 13:39:50 Aug 24
Max STEL Concentration: 0.004 mg/m³
Time at max STEL: 13:39:44 Aug 24
Overall Avg Conc: 0.013 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Aug	13:39:44	0.011

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:04:11 24-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.054 mg/m³
Time at maximum: 15:09:15 Aug 24
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 15:05:11 Aug 24
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24-Aug	15:09:11	0.005

8-24-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION 082405

DRAWING REV.	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM 082405	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-24-05 0756	PDR	Ben Kling	Zero Calibration	"Cal OK"	Sunny, warm, variable

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

The Weather Channel

8-24-05

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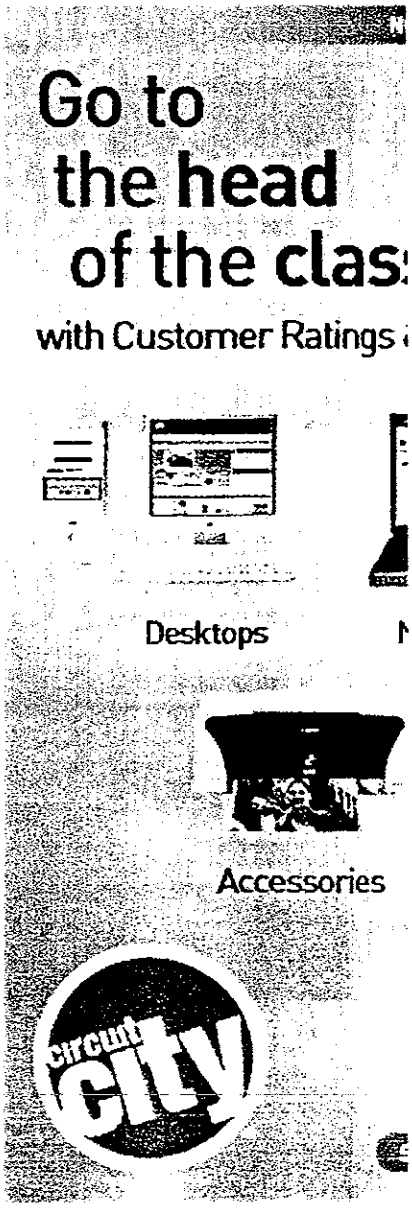
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press.	Wind
4:50 AM	Clear 55°F	55°F	54°F	94%	Unlimited	30.15	From NE 7mph
5:45 AM	Clear 59°F	59°F	55°F	88%	Unlimited	30.15 →	From NE 7mph
Sunrise at 6:08 AM							
6:50 AM	Sunny 61°F	61°F	57°F	88%	Unlimited	30.16 ↑	From NE 7mph
7:50 AM	Sunny 63°F	63°F	57°F	82%	Unlimited	30.18 ↑	From ESE 9mph
8:50 AM	Sunny 68°F	68°F	59°F	73%	Unlimited	30.18 →	From ESE 12mph
9:45 AM	Partly Cloudy 72°F	72°F	59°F	64%	Unlimited	30.18 →	From ESE 12mph
10:50 AM	Partly Cloudy 73°F	73°F	57°F	57%	Unlimited	30.18 →	From ESE 12mph
11:50 AM	Mostly Cloudy 75°F	75°F	57°F	53%	Unlimited	30.18 →	From E 14mph
12:50 PM	Mostly Cloudy 77°F	77°F	59°F	54%	Unlimited	30.17 ↓	From ESE 17mph
1:50 PM	Mostly Cloudy 75°F	75°F	57°F	53%	Unlimited	30.16 ↓	From ESE 12mph
2:50 PM	Mostly Cloudy 79°F	79°F	59°F	51%	Unlimited	30.15 ↓	From ESE 10mph



CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
280

DATE
25 Aug 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 64 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Roughneck Cut two additional pipes on the south end, a total of six have been cut to date. Progress was hindered when the saw bound up near the end of the cuts. ONYX and Thatcher worked at clearing the area to the north in the "jacking" pit in preparation for making those cuts. EQ continued demolition of the dewatering cell and assisted Thatcher.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from ONYX (Thatcher sub), one person from Roughneck (Thatcher sub), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 280

DATE 25 Aug 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
BOM	SAFETY ENGINEER - ON SITE		1.0	8.0
BOM	SUPER - JOB		1.0	8.0
BOM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	6,036.0	Total	13.0	104.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
60RC2136	Small Excavator		0.0	8.0
Total operating hours to date: 1,168.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:31:17 25-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.079 mg/m³
Time at maximum: 10:36:04 Aug 25
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:31:17 Aug 25
Overall Avg Conc: 0.001 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Aug	10:36:17	0.007

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:48:04 25-Aug
Elapsed time: 00:15:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.609 mg/m³
Time at maximum: 11:49:47 Aug 25
Max STEL Concentration: 0.048 mg/m³
Time at max STEL: 11:53:34 Aug 25
Overall Avg Conc: 0.037 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Aug	11:53:04	0.143

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:34:04 25-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.517 mg/m³
Time at maximum: 14:38:12 Aug 25
Max STEL Concentration: 0.273 mg/m³
Time at max STEL: 14:46:35 Aug 25
Overall Avg Conc: 0.327 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Aug	14:44:04	0.336

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:08:57 25-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.196 mg/m³
Time at maximum: 15:10:09 Aug 25
Max STEL Concentration: 0.049 mg/m³
Time at max STEL: 15:14:27 Aug 25
Overall Avg Conc: 0.134 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	25-Aug	15:13:57	0.136

SAMPLING EQUIPMENT CALIBRATION LOG

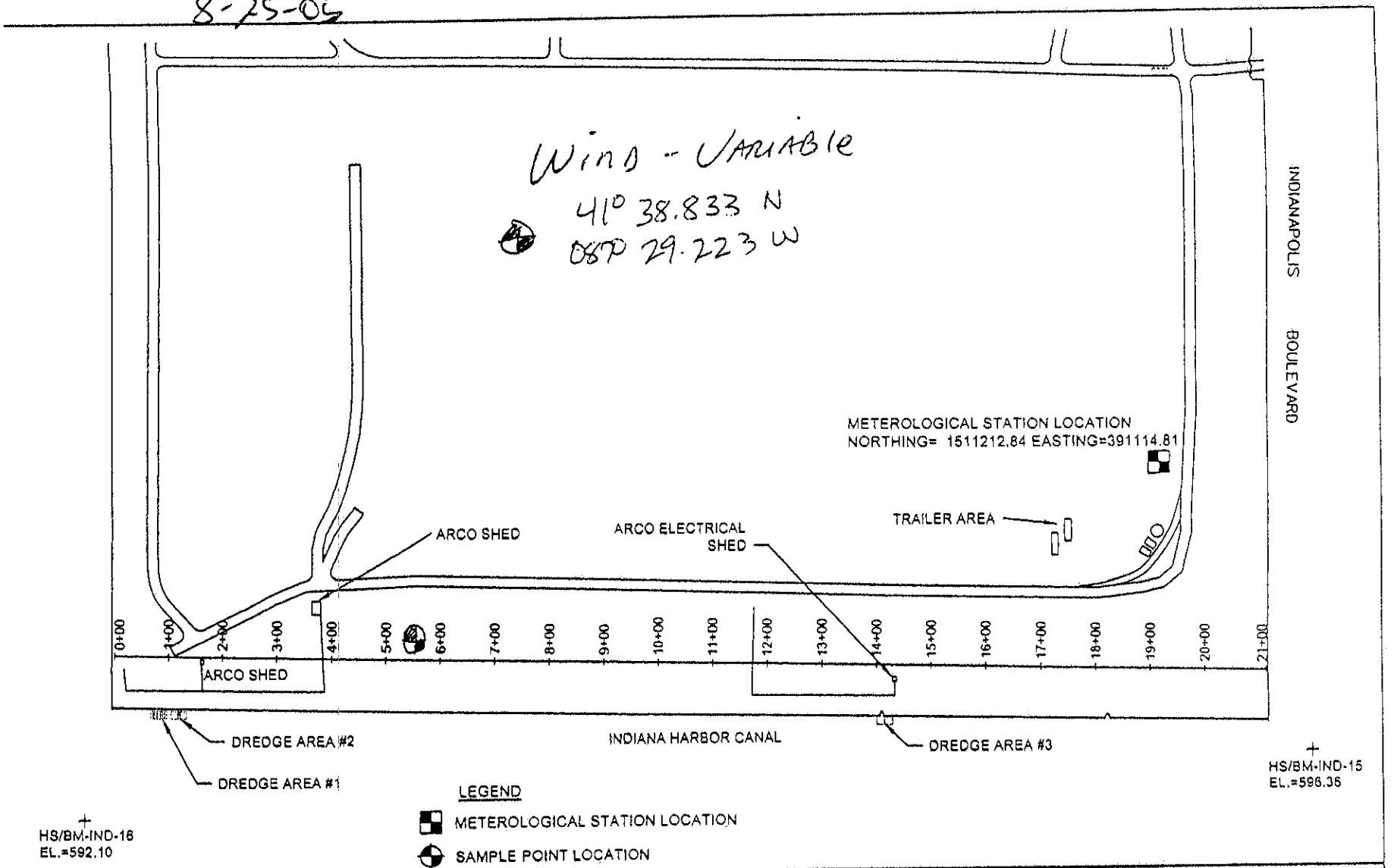
Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-25-05 0755	PDR	Ben Flatery	ZERO Calibration	"Cal. OK"	Sunny, warm, Lamble wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

8-25-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	O.TOMO	8/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION 0802505

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM 0802505	0

The Weather Channel

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8-25-05

Katrina Coverage | Tropical Update

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press	Wind
4:50 AM	Clear 64°F	64°F	59°F	83%	Unlimited	30.15	From SE 12mph
5:50 AM	Mostly Cloudy 64°F	64°F	59°F	83%	Unlimited	30.16 ↑	From SE 12mph
Sunrise at 6:09 AM							
6:50 AM	Cloudy 64°F	64°F	59°F	83%	Unlimited	30.17 ↑	From SE 12mph
7:50 AM	Cloudy 68°F	68°F	59°F	73%	Unlimited	30.16 ↓	From SE 12mph
8:50 AM	Cloudy 70°F	70°F	59°F	68%	Unlimited	30.16 →	From SE 12mph
9:50 AM	Cloudy 75°F	76°F	63°F	65%	Unlimited	30.17 ↑	From SE 9mph
10:50 AM	Mostly Cloudy 75°F	76°F	61°F	61%	Unlimited	30.18 ↑	Variable 7mph
11:50 AM	Mostly Cloudy 79°F	79°F	61°F	54%	Unlimited	30.16 ↓	Variable 7mph
12:50 PM	Mostly Cloudy 81°F	81°F	59°F	48%	Unlimited	30.14 ↓	Variable 6mph
1:50 PM	Mostly Cloudy 82°F	84°F	64°F	54%	Unlimited	30.14 →	Variable 6mph
2:50 PM	Mostly Cloudy 79°F	80°F	64°F	61%	Unlimited	30.12 ↓	Variable 7mph

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3:50 PM	Cloudy 79°F	80°F	63°F	57%	Unlimited	30.11 ↓	Variable 7mph
4:50 PM	Cloudy 79°F	80°F	63°F	57%	Unlimited	30.10 ↓	From NNE 12mph
5:50 PM	Cloudy 77°F	78°F	64°F	65%	Unlimited	30.09 ↓	From NNE 9mph
6:50 PM	Cloudy 77°F	79°F	66°F	69%	Unlimited	30.07 ↓	From NNE 9mph
Sunset at 7:34 PM							
7:50 PM	Cloudy 77°F	79°F	66°F	69%	Unlimited	30.07 →	Variable 7mph
8:50 PM	Cloudy 73°F	73°F	66°F	78%	Unlimited	30.06 ↓	Variable 7mph
9:50 PM	Cloudy 75°F	77°F	66°F	73%	Unlimited	30.06 →	Variable 7mph

Back to previous page

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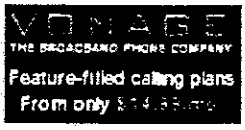

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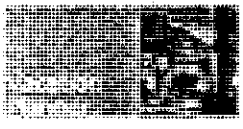

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REPETITIVE DIVING LOG

PROJECT: Thatcher Eng JOB NO: 072 DATE: 8 23 95
VIS: TEMP:

DIVER: Stocutts

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS	0817	NG	LS		NG	LS	
LB	0942	RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: Rehook Broken Saw Blade air / Fitting Land Side To locate pipe. / Diving Riverside & Land Side as needed

DIVER: McFarland

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth	30	SI	Depth	
LS	1214	NG	LS	1421	NG	LS	
LB	1324	RNT	LB	1421	RNT	LB	
BT	130		BT	20 min		BT	
DECO	20 min		RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: (1) Diver Rigged up Crane and Broke off Pipe
(2) Checking Saw Cuts

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

8-25-05 Thatcher Eng.

Onyx Special Services, Inc — **MARINE SERVICES** — Job Safety Analysis

Plant: In Harbor Sam pipe removal	Contact: Tom Schenter (Thatche)	Date: Start @ 8-25-05
Location/Unit:	Time JSA Completed:	Person Initiating JSA: Beaubois
Plant Emergency #:	Emergency Shower and Eyewash Location: @ Thatcher Trailer	
Supervisor's Name:		
Project Number 140159E.05 OT2	Job Description:	

Type of Permit Required: Only if Burning

[ ] General Safe Work Permit	[ ] Hot Work Permit	[ ] Confined Space Permit
[ ] Excavation Permit	[X] No Permit Required	[ ] Other:

Emergency Data:

Wind Direction: Out of East	Primary Evacuation Point: Thatcher Trailer
Secondary Evacuation Point: E Q Trailer	Backup Emergency Communications: Cell Phone
Fire Extinguisher Available: Yes	Inspection Date: 2-6-05 Is Pin Intact: [X] Yes [ ] No

Place an "X" next to each item needed for the job.

Personal Protective Equipment (PPE) Assessment Checklist:

Eye and Face Protection (Needed for the Job):
[X] Safety Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:

Head Protection:
[X] Hard Hat ( ) Welding Shied [ ] Other:

Foot Protection (Needed for the Job):
[ ] Over Boot [X] Steel Toed Work Boots [X] Rubber Boots ( ) Leather

Hand Protection (Needed for the Job):
[X] Leather Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:

Hearing Protection: [ ] Ear Plugs [ ] Ear Muffs [ ] Other: In Noisy Area

Protective Clothing (Needed for the Job):
[X] Contaminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
[ ] NOMEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Diver #1	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #1	Bailout PSI		Communications			
Diver #2	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #2	Bailout PSI		Communications			
Diver #3	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #3	Bailout PSI		Communications			
Diver #4	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other
Diver #4	Bailout PSI		Communications			
Additional Back-up Air Supply PSI		Location	Additional Back-up Air Supply PSI			Location
Additional Back-up Air Supply PSI		Location	Additional Back-up Air Supply PSI			Location

Confined Space: | | N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Have Onyx Confined Space Procedures been explained to entire crew N/A [ ] Yes [ ] No **If no, review now

Has Confined Space Evaluation been Conducted and Signed by Entire Crew N/A [ ] Yes [ ] No

Tools/Equipment: Are the following conditions met Place an "X" next to each item needed for the job.

- [X] Is Equipment Fueled
- [X] Have all bail-out bottle been gauge.
- [X] Have communications been tested in dive helmets.
- [ ] All Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/a
- [X] Ladders installed and secured in place.
- [X] Pump Equipment checked out Air lift & Jet pump
- [X] Hoses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.
- [X] All Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Job Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
Access: Fall Protection, Breaking the Plane of a Confined Space, Uneven & Elevated Surfaces, etc.)	Elevated platform	Carefull when climbing
Chemicals/Materials: In immediate Area or Brought On-site for Task (MSDS Available & Reviewed)	Oily mat'l in water	Rubber Gloves
Environment: Area Barricaded, Noise, Weather, Wind Direction, Lighting, Heat, Hazardous Atmosphere, etc.	Wind Direction For Compressor	be alert For Wind Change/Compre
Physical: Body Positioning, Wind Direction, Pinch Points, Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane lifts	Diver & Surface personel Careful
Potential (Stored) Energy: Lockout/Tagout in Place, GFCI Tested and Used, Power Lines, Static Elect., etc.	N/a.	
Tools/Equipment: Hazards of Tools, Heavy Machinery, Pumps, Jetting equip. etc.	Saw Wire	Don't go on cutting platform with saw running!
Scaffolding: Scaffold Tagged, Pre-shift Inspection tag, User Inspected, Fall Protection, etc.	Wood Platform.	Carefull in climbing.
Other: List any Other Hazards that may be Present on Your Job (i.e. Pinch Points, Tripping Hazards).	uneven Ground	watch For Trip Hazards.

All Incidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or assistance with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I HAVE READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO ALL SAFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

8-25-05

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

66

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 70-970
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 yd.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 8-26-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

NON-HAZARDOUS WASTE MANIFEST

Arch

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of JSALE — 8-26-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 721 Box 20-970

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Rick LaBron — 8-26-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

Department of Environmental Quality, Waste and Hazardous Materials Division

61
area 1

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 730 Box 20-130
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 1 TON = 2,000 LBS. 20 YD.
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE:
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rudzitis On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 8-26-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

6 / alla 1

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt

Address: 4522 Indianapolis Blvd

City: East Chicago County: Lake

State: Indiana Zip: 46312

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)

Address: 1800 Carillon Blvd.

City: Cincinnati County:

State: Ohio Zip: 45240

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — 8-26-05

Generator/Authorized Agent Name — Signature — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.

Transporter Address: 2320 W. 167th Street

Markham, Illinois 60428

DOT# 328103

Truck Number: 730 Box 20-130

Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MIKE SCIORTINO — M. SCIORTINO — 8-26-05

Name of Authorized Agent — Signature — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.

Phone No. 269-756-9252

Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials.

Name (Print or Type) — Signature — Date Received

Form SW02 (2003)

65
area 1

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be of in Michigan landfills.

is form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for

GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION

TOR NAME: Chicago Waterway Mgmt.

ATOR MAILING ADDRESS: 22 Indianapolis BLVD.

STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

Chicago

RATOR PHYSICAL ADDRESS: 500 Indianapolis BLVD.

STATE/PROVINCE: IN ZIP/MAIL CODE: 46312

ST Chicago

ERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157

ME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, INC.

AULER MAILING ADDRESS: 2320 W. 167th STREET

STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428

ITY: Markham

HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380

SOLID WASTE LOAD BEING DOCUMENTED

HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 721 Box 20-911

VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 YD.

1 TON = 2,000 LBS.

DESCRIPTION OF WASTE: SEDIMENT

I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.

GENERATOR AUTHORIZED SIGNATURE: [signature]

PRINT NAME: Arthur R. Nedzaitis On Behalf of USACE

DATE: 8-25-05

PART 2: LANDFILL INFORMATION

LANDFILL NAME:

LANDFILL PHYSICAL ADDRESS:

CITY: STATE: ZIP CODE:

LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):

LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):

COMMENTS REGARDING LOAD LISTED ABOVE:

LANDFILL DISPOSAL DATE:

LANDFILL AUTHORIZED SIGNATURE:

PRINT NAME:

EQP 5224 (10/04)

64
area 1

DEQ

Department of Environmental Quality, Waste and Hazardous Materials Division

UNIFORM SOLID WASTE RECORD

Completion of this form fulfills the documentation requirements of Section 11526a(1)(a) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for certain solid waste generated outside of Michigan to be disposed of in Michigan landfills.

Part 1 of this form shall be completed by the generator or the hauler of the solid waste load to be disposed of in Michigan. Part 2 of this form shall be completed by the Michigan landfill to which the solid waste is delivered. The landfill shall retain a copy for their records and make such copy available for inspection.

PART 1: GENERATOR, HAULER, AND WASTE INFORMATION

GENERATOR AND HAULER INFORMATION	SOLID WASTE LOAD BEING DOCUMENTED
GENERATOR NAME: East Chicago Waterway Mgmt.	HAULER VEHICLE/TRAILER # OF VEHICLE DELIVERING WASTE TO MICHIGAN: 730 Box 20-128
GENERATOR MAILING ADDRESS: 4522 Indianapolis Blvd.	VOLUME (CUBIC YARDS) OR WEIGHT (TONS) OF WASTE TRANSPORTED FOR DISPOSAL IN MICHIGAN (INDICATE UNIT OF MEASURE): 20 YD. (1 TON = 2,000 LBS.)
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	DESCRIPTION OF WASTE: SEDIMENT
GENERATOR PHYSICAL ADDRESS: 3500 Indianapolis Blvd.	
CITY: East Chicago STATE/PROVINCE: IN ZIP/MAIL CODE: 46312	
GENERATOR TELEPHONE NUMBER (INCLUDING AREA CODE): 312-860-0157	I certify that the above indicated solid waste load is composed of a uniform type of item, material, or substance, other than municipal solid waste incinerator ash, that meets the requirements for disposal in a Michigan landfill. I also certify that the information contained on this form, to the best of my knowledge and belief, is true.
NAME OF HAULER DELIVERING WASTE TO LANDFILL: First Choice Logistics, Inc.	GENERATOR AUTHORIZED SIGNATURE: [signature]
HAULER MAILING ADDRESS: 2320 W. 167th Street	PRINT NAME: Arthur Rutkauskas On Behalf of USACE
CITY: Markham STATE/PROVINCE: Illinois ZIP/MAIL CODE: 60428	DATE: 8-25-05
HAULER TELEPHONE NUMBER (INCLUDING AREA CODE): 877-927-8380	

PART 2: LANDFILL INFORMATION

LANDFILL NAME:	LANDFILL DESIGNATION FOR CERTIFIED LOAD (Receipt #, etc.):
LANDFILL PHYSICAL ADDRESS:	COMMENTS REGARDING LOAD LISTED ABOVE:
	LANDFILL DISPOSAL DATE:
CITY: STATE: ZIP CODE:	
LANDFILL TELEPHONE NUMBER (INCLUDING AREA CODE):	LANDFILL AUTHORIZED SIGNATURE:
	PRINT NAME:

EQP 5224 (10/04)

AREA # 1
64

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

Generator Name: East Chicago Waterway Mgmt
Address: 4522 Indianapolis Blvd
City: East Chicago County: Lake
State: Indiana Zip: 46312

CUSTOMER/BILLING INFORMATION

Billing Name: Environmental Quality Management (EQM)
Address: 1800 Carillon Blvd.
City: Cincinnati County:
State: Ohio Zip: 45240

Site Location (if different): 3500 Indianapolis Blvd, East Chicago, Indiana 46312

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
507049	Sediment	20 Yd	7/14/06	20 Yd

*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

On Behalf of USACE — Generator/Authorized Agent Name
Signature
8-25-05 — Date Shipped

TRANSPORTER INFORMATION

Transporter Name: First Choice Logistic, Inc.
Transporter Address: 2320 W. 167th Street
Markham, Illinois 60428

DOT# 328103
Truck Number: 730 Box 20-128
Phone Number: 877-927-8380

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

MIKE SCIORTINO — Name of Authorized Agent
M. SCIORTINO — Signature
8-25-05 — Date Delivered

DISPOSAL SITE INFORMATION

Site Name: Forest Lawn Landfill, Inc.
Phone No. 269-756-9252
Site Address: 8230 W. Forest Lawn Road Three Oaks, Michigan 49128

I hereby acknowledge receipt of the above described materials

Name (Print or Type)
Signature
Date Received

Form SW02 (2003)

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 281

DATE 26 Aug 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Mn 66 °F, Max 84 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Roughneck Cut two additional pipes on the south end, a total of eight have been cut to date. ONYX and Thatcher worked at clearing the area to the north in the "jacking" pit in preparation for making those cuts. EQ completed demolition of the dewatering cell and assisted Thatcher.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, three security guards fromTask Force, tthree personnel formThatcher, 4 divers from ONYX (Thatcher sub), one person fromRoughneck (Thatcher sub), one operator and one laborer fromMaintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREPINITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 281

DATE 26 Aug 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	4.0	32.0
	Total	12.0	96.0

Total hours worked to date: 6,132.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CR02136	Small Excavator	0.0	8.0
	Total	0.0	16.0

Total operating hours to date: 1,184.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

	DATE	SUPERINTENDENT'S INITIALS	DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 10:06:06 26-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 10:06:06 Aug 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:06:06 Aug 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Aug	10:11:06	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:30:33 26-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 1.006 mg/m³
Time at maximum: 11:32:46 Aug 26
Max STEL Concentration: 0.025 mg/m³
Time at max STEL: 11:34:03 Aug 26
Overall Avg Conc: 0.077 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Aug	11:35:33	0 084

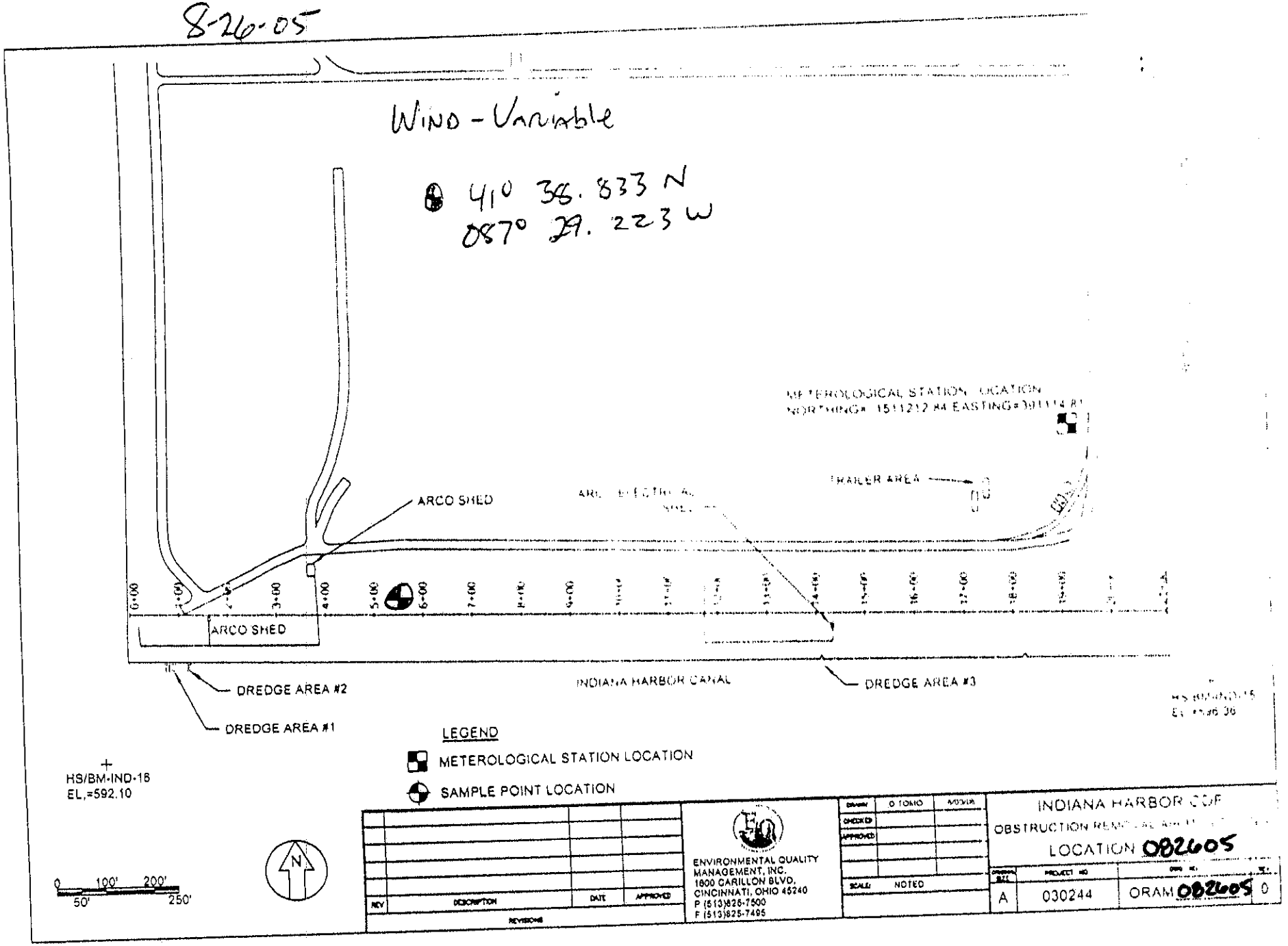
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:12:41 26-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:12:41 Aug 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:12:41 Aug 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	26-Aug	14:17:41	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:21:11 26-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:21:11 Aug 26
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:21:11 Aug 26
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	26-Aug	15:26:11	0

8-26-05


WIND - Variable
41° 38.833 N
087° 29.223 W
METEROLOGICAL STATION LOCATION
TRAILER AREA
ARCO SHED
ARCO SHED
0+00
2+00
3+00
4+00
5+00
6+00
7+00
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
HS/BM-IND-16
EL.=592.10
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
O TONIO
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
LOCATION 082605
A
030244
ORAM 082605
0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Ludington Harbor Obstruction Removal Project No.: 0302.44

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-26-05 0811	PDR	[illegible]	Zero Calibration	"Cal OK"	Sunny, warm, variable wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

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Local Weather Enter city or US zip See weather related to GO Get 1-click access to your local weather

8-26-05 Katrina Coverage | Hurricane Central

Yesterday's Hourly Conditions as reported at Gary

August 26 Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib	Press	Wind
4:50 AM	Partly Cloudy 70°F	70°F	66°F	88%	10.0 miles	29.99	Variable 5mph
5:50 AM	Mostly Cloudy 66°F	66°F	63°F	88%	5.0 miles	29.99 →	calm
Sunrise at 6:10 AM							
6:50 AM	Mostly Cloudy 70°F	70°F	68°F	94%	4.0 miles	29.98 ↓	Variable 7mph
7:50 AM	Partly Cloudy 72°F	72°F	66°F	83%	7.0 miles	29.97 ↓	Variable 5mph
8:50 AM	Partly Cloudy 75°F	77°F	66°F	73%	7.0 miles	29.97 →	Variable 6mph
9:50 AM	Partly Cloudy 79°F	81°F	66°F	65%	7.0 miles	29.97 →	Variable 6mph
10:50 AM	Partly Cloudy 81°F	83°F	66°F	61%	7.0 miles	29.95 ↓	Variable 6mph
11:50 AM	Partly Cloudy 82°F	85°F	66°F	58%	7.0 miles	29.94 ↓	Variable 7mph
12:50 PM	Partly Cloudy 84°F	86°F	64°F	51%	7.0 miles	29.91 ↓	From S 12mph
1:50 PM	Mostly Cloudy 84°F	86°F	64°F	51%	7.0 miles	29.89 ↓	Variable 7mph
3:50 PM	Mostly Cloudy	85°F	66°F	58%	10.0 miles	29.85 ↓	Variable 7mph

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Special Offers in East Chic

		82°F						
5:55 PM		Partly Cloudy 81°F	83°F	68°F	65%	10.0 miles	29.83 ↓	From ENE 9mph
6:48 PM		Partly Cloudy 81°F	83°F	68°F	65%	7.0 miles	29.82 ↓	From ENE 9mph
Sunset at 7:33 PM								
7:46 PM		Partly Cloudy 79°F	82°F	70°F	74%	7.0 miles	29.81 ↓	Variable 3mph
8:50 PM		Cloudy 75°F	78°F	70°F	83%	7.0 miles	29.82 ↑	Variable 3mph
9:50 PM		Mostly Cloudy 75°F	78°F	72°F	89%	7.0 miles	29.81 ↓	calm

Back to previous page

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Scotts.

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Outdoor Exercise Forecast
For East Chicago, IN (46312)
OR
Enter city or zip GO!

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- Walk Off Extra Pounds
- Get Expert Fitness Advice
- Find Your Target Heart Rate

What's on The Weather Channel

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On-Air Schedule (ET)

Now	First Outlook
9 AM	Day Planner
12 PM	Weather Center

Tune to The Weather Channel Radio in your area!

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Galleria Studios
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www.GSweddings.com

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Get you Weathe

This Week's Features

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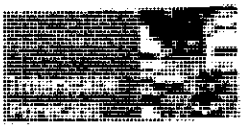
View pet p your local

Driving in Rain



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Summer Adventure

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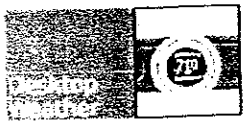
Desktop Weather



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Weather a

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 284 Page 1 of 2 DATE 29 Aug 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 61 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The remainder of the pipes inside the coffer dam were cut. pipes were also pulled from the jacking pit. A total of six pipes are completely removed.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
William Brunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from ONYX (Thatcher sub), one person from Roughneck (Thatcher sub), one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 284

DATE 29 Aug 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		1.0	8.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	6,236.0	Total	13.0	104.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date:	1,200.0	Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE | SUPERINTENDENT'S INITIALS | DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:25:48 29-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.004 mg/m³
Time at maximum: 09:26:17 Aug 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:25:48 Aug 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Aug	09:30:48	0.001

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:19:18 29-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:19:18 Aug 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:19:18 Aug 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Aug	11:24:18	0

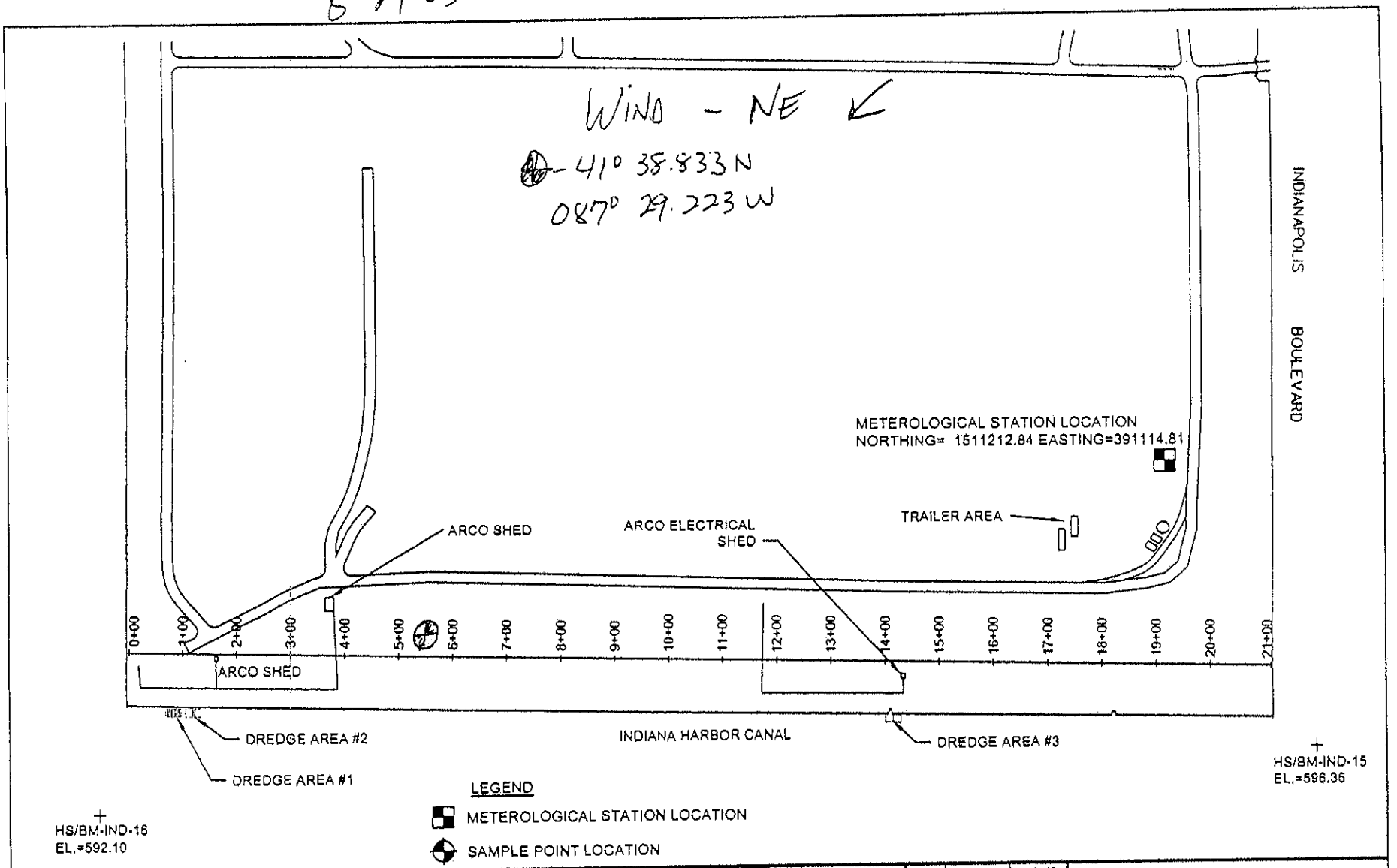
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:41:26 29-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:41:26 Aug 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:41:26 Aug 29
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Aug	13:46:26	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:18:49 29-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.084 mg/m³
Time at maximum: 15:23:16 Aug 29
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:18:31 Aug 29
Overall Avg Conc: 0.003 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	29-Aug	15:23:31	0.004

8-29-05



REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	6/03/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AIR MONITORING
LOCATION 082905

DRAWING SIZE	PROJECT NO.	DWG NO.	REV
A	030244	ORAM082905	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-29-05 0745	PDR	Ben Elberg	Zero Calibration	"Cal OK"	Sunny, warm NE WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

The Weather Channel

8-29-05

Bringing

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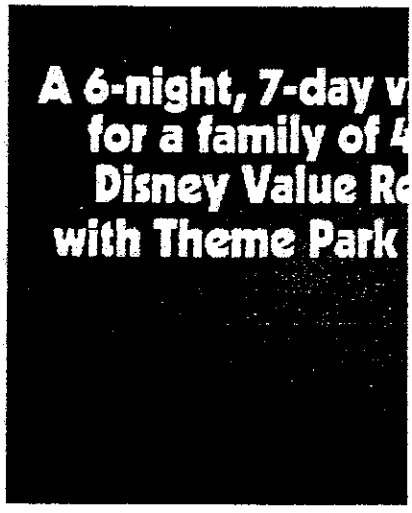
Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib	Press.	Wind
4:45 AM	Partly Cloudy 64°F	64°F	63°F	94%	10.0 miles	29.87	calm
5:50 AM	Partly Cloudy 63°F	63°F	61°F	94%	10.0 miles	29.88 ↑	calm
Sunrise at 6:13 AM							
6:50 AM	Partly Cloudy 61°F	61°F	59°F	94%	Unlimited	29.88 →	calm
7:50 AM	Mostly Cloudy 70°F	70°F	66°F	88%	Unlimited	29.89 ↑	calm
8:50 AM	Mostly Cloudy 75°F	77°F	68°F	78%	Unlimited	N/A	calm
9:45 AM	Mostly Cloudy 77°F	78°F	64°F	65%	Unlimited	29.90	Variable 6mph
10:45 AM	Partly Cloudy 79°F	81°F	66°F	65%	Unlimited	N/A	From N 8mph
11:45 AM	Partly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.89	From NNE 9mph
12:50 PM	Partly Cloudy 81°F	82°F	64°F	58%	Unlimited	29.89 →	From NNE 9mph
2:47 PM	Partly Cloudy 82°F	84°F	63°F	51%	Unlimited	29.86 ↓	From NNE 9mph
3:50 PM	Partly Cloudy	84°F	64°F	54%	Unlimited	29.85 ↓	From NNE 9mph



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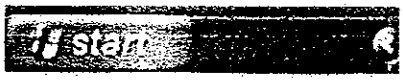

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		82°F						
4:50 PM		Partly Cloudy 81°F	82°F	64°F	58%	Unlimited	29.84 ↓	From NE 9mph
5:50 PM		Partly Cloudy 81°F	82°F	64°F	58%	Unlimited	29.83 ↓	From NE 14mph
6:50 PM		Mostly Cloudy 79°F	80°F	63°F	57%	Unlimited	29.83 →	From NE 8mph
Sunset at 7:28 PM								
7:50 PM		Mostly Cloudy 75°F	76°F	64°F	69%	Unlimited	29.83 →	Variable 7mph
8:50 PM		Mostly Cloudy 68°F	68°F	64°F	88%	Unlimited	29.83 →	Variable 7mph
9:50 PM		Cloudy 66°F	66°F	63°F	88%	Unlimited	29.83 →	calm

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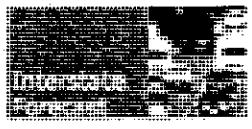

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CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 285 Page 1 of 2 DATE 30 Aug 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P5-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 57 °F, Max 81 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The remaining pipes were removed. The divers will inspect the cribbing to ensure there are no major holes. If large holes are found they will be plugged.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
WilliamBrunston EQM, Ben Letany EQM, Ed Wise EQM, three security guards fromTask Force, tthree personnel formThatcher, 4 divers fromONYX (Thatcher sub), one person fromRoughneck (Thatcher sub), one operator and one laborer fromMaintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 285

DATE 30 Aug 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	1.0	8.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	4.0	32.0
	Total	13.0	104.0

Total hours worked to date: 6,340.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CRC2136	Small Excavator	0.0	8.0
	Total	0.0	16.0

Total operating hours to date: 1,216.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

DATE | SUPERINTENDENT'S INITIALS | DATE

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:26:44 30-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.014 mg/m³
Time at maximum: 09:26:47 Aug 30
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 09:27:44 Aug 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Aug	09:31:44	0.002

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 6
Start time and date: 10:27:13 30-Aug
Elapsed time: 00:5:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 10:27:13 Aug 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 10:27:13 Aug 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Aug	10:32:13	0

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 9
Start time and date: 13:00:42 30-Aug
Elapsed time: 00:45:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 13:00:42 Aug 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:00:42 Aug 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	30-Aug	13:05:42	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:02:04 30-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:02:04 Aug 30
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:02:04 Aug 30
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	30-Aug	15:07:04	0

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-30-05 0815	PDR	Ben Selby	2000 Calibration	"Cal OK"	Sunny, WINDY out of North

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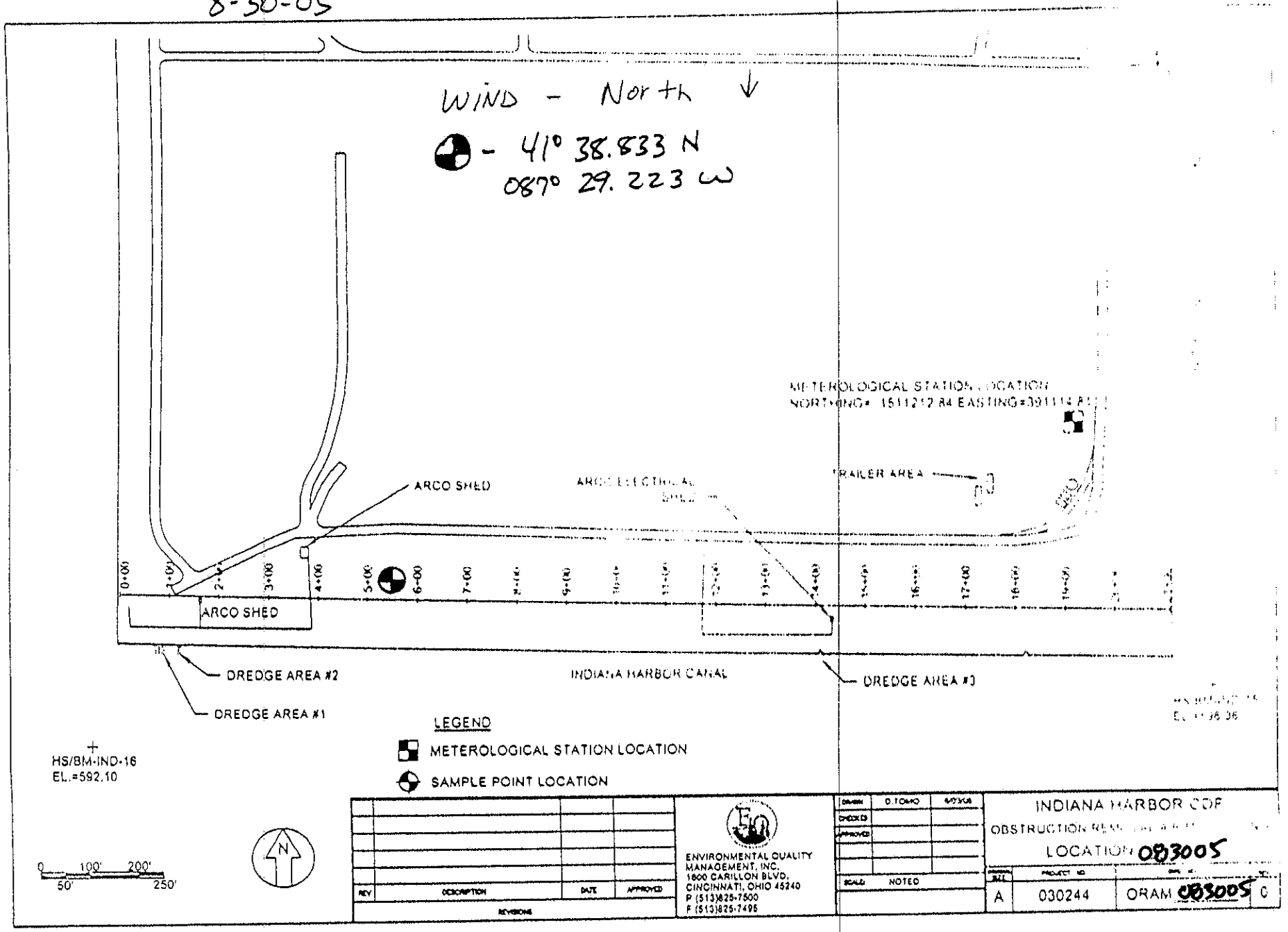
8-30-05


WIND - North
41° 38.833 N
087° 29.223 W
METEROLOGICAL STATION LOCATION
TRAILER AREA
ARCO SHED
ARCO SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
D.TOMKO
CHECKED
APPROVED
SCALE
NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
LOCATION 083005
A
030244
ORAM 083005
0

The Weather Channel

8-30-05

Local Weather Enter city or US zip See weather related to ... GO Get 1-click access to your local weather

Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

Katrina Coverage | Hurricane Central

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:50 AM	Clear 57°F	57°F	55°F	94%	5.0 miles	29.80	calm
5:48 AM	Partly Cloudy 61°F	61°F	59°F	94%	5.0 miles	29.78 ↓	calm
Sunrise at 6:14 AM							
6:50 AM	Mostly Cloudy 57°F	57°F	55°F	94%	Unlimited	29.79 ↑	calm
7:50 AM	Mostly Cloudy 73°F	73°F	64°F	73%	Unlimited	29.78 ↓	From NNE 9mph
8:45 AM	Mostly Cloudy 75°F	76°F	64°F	69%	Unlimited	29.77 ↓	From NNE 9mph
9:45 AM	Mostly Cloudy 75°F	77°F	66°F	73%	Unlimited	29.76 ↓	From NNE 12mph
10:45 AM	Mostly Cloudy 77°F	78°F	64°F	65%	Unlimited	29.74 ↓	From NNE 12mph
11:45 AM	Mostly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.73 ↓	From NNE 14mph
12:45 PM	Mostly Cloudy 81°F	83°F	66°F	61%	Unlimited	29.70 ↓	From NNE 14mph
1:46 PM	Mostly Cloudy 79°F	81°F	66°F	65%	Unlimited	29.69 ↓	From N 14mph
3:50 PM	Cloudy 79°F	81°F	66°F	65%	Unlimited	29.66 ↓	From N 14mph

4:50 PM	Cloudy 77°F	79°F	66°F	69%	Unlimited	29.65 ↓	From N 14mph
5:50 PM	Cloudy 75°F	77°F	68°F	78%	Unlimited	29.65 →	From N 14mph
6:50 PM	Cloudy 75°F	78°F	70°F	83%	Unlimited	29.66 ↑	From N 14mph
Sunset at 7:26 PM							
7:50 PM	Cloudy 75°F	78°F	70°F	83%	Unlimited	29.67 ↑	From N 14mph
8:50 PM	Cloudy 75°F	78°F	70°F	83%	Unlimited	29.69 ↑	From N 14mph
9:50 PM	Cloudy 75°F	78°F	70°F	83%	Unlimited	29.69 →	From N 12mph

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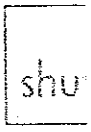

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 286

DATE 31 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 61 °F, Max 77 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
The divers inspected the interior of the coffer dam to verify that all obstructions in the drive line were removed. This was so. They also inspected the base of the existing sheet pile wall. Large gaps were found along most of the wall. A profile view sketch showing the configuration was prepared and is attached. DLZ surveyed the pipe ends in the coffer dam and the location of the endmost wooden piles near the existing sheet pile wall.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, 4 divers from CNYX (Thatcher sub), one person from Roughneck (Thatcher sub), two surveyors from DLZ, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 286

DATE 31 Aug 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		2.0	8.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING		1.0	8.0
Thatcher Engineering	OPERATING ENGINEER		1.0	8.0
Thatcher Engineering	PILE DRIVER OPERATOR		2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		4.0	32.0
Total hours worked to date:	6,444.0	Total	14.0	104.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	8.0
6CR02136	Small Excavator		0.0	8.0
Total operating hours to date: 1,232.0		Total	0.0	16.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: L Hatcher Zim In Harbor & Canal Job

JOB NO: 072 DATE: 8-31-05

VIS: TEMP:

DIVER: Stowell

BO 2500 } PSI
Stby 3200 }

DIVE 1

Depth	20	SI	
LS	0854	NG	
LB	1038	RNT	
BT	104 min		
DECO			
RS			
RG			
TBL	35/310 min		

DIVE 2

Depth		SI	
LS	1053	NG	
LB		RNT	
BT			
RNT +			
TBT =			
DECO			
RS			
RG			
TBL			

DIVE 3

Depth	
LS	
LB	
BT	
RNT +	
TBT =	
DECO	
RS	
RG	
TBL	

REMARKS: (1) Diver Down to Survey 10 pipes & Inspection land side Sheet Wall. Removed 4" Conduit pipe (2) Survey Land Side Jacking pit.

DIVER:

DIVE 1

Depth		SI	
LS		NG	
LB		RNT	
BT			
DECO			
RS			
RG			
TBL			

DIVE 2

Depth		SI	
LS		NG	
LB		RNT	
BT			
RNT +			
TBT =			
DECO			
RS			
RG			
TBL			

DIVE 3

Depth	
LS	
LB	
BT	
RNT +	
TBT =	
DECO	
RS	
RG	
TBL	

REMARKS:

DIVER:

DIVE 1

Depth		SI	
LS		NG	
LB		RNT	
BT			
DECO			
RS			
RG			
TBL			

DIVE 2

Depth		SI	
LS		NG	
LB		RNT	
BT			
RNT +			
TBT =			
DECO			
RS			
RG			
TBL			

DIVE 3

Depth	
LS	
LB	
BT	
RNT +	
TBT =	
DECO	
RS	
RG	

CHICAGO UNDERWATER

Superior

REPETITIVE DIVING LOG

PROJECT: Thatcher Zinc
~~In Harbor & Canal Job~~

JOB NO: 072 DATE: 8-31-05
VIS: TEMP:

DIVER: Stowells

BO. 2500 } PSI
Stby 3200 }

DIVE 1			DIVE 2			DIVE 3	
Depth	30	SI	Depth		SI	Depth	
LS	0854	NG	LS	1053	NG	LS	
LB	1038	RNT	LB		RNT	LB	
BT	104 min		BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL	35/310 min		RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS: (1) Diver Dewatered Survey 10 pipes & Inspection land side Sheet Wall. Removed 4" conduit pipe. (2) Survey Land Side Jacking pit.

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL			TBL	

REMARKS:

DIVER:

DIVE 1			DIVE 2			DIVE 3	
Depth		SI	Depth		SI	Depth	
LS		NG	LS		NG	LS	
LB		RNT	LB		RNT	LB	
BT			BT			BT	
DECO			RNT +			RNT +	
RS			TBT =			TBT =	
RG			DECO			DECO	
TBL			RS			RS	
			RG			RG	
			TBL				

8·31·05 Thatcher Eng

rx Special Services, Inc — MARINE SERVICES — Job Safety Analysis

In Harbor & Canal Pipe Removal
on/Unit: " " " "
Emergency #:
visor's Name: Beaudoin
t Number 140159E.05 072 Job Description:

Contact: Tom Scheffer
Time JSA Completed: 0800
Emergency Shower and Eyewash Location:

Date: 8·31·05
Person Initiating JSA: Beaudoin

of Permit Required:
eral Safe Work Permit [] Hot Work Permit unless Burning is Required [] Confined Space Permit
avation Permit [X] No Permit Required [] Other:

ency Data:
Direction: out of South.
lary Evacuation Point: E & Trailer
tinguisher Available: Yes
Primary Evacuation Point: Thatcher Trailer
Backup Emergency Communications:
Inspection Date: 2·7·05 Is Pin Intact: [X] Yes [] No

al Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job.

d Face Protection (Needed for the Job):
ty Glasses [] Goggles [] Face Shield [] Welding Shield [] Other:
Protection:
l Hat () Welding Shied [] Other:
rotection (Needed for the Job):
Boot [X] Steel Toed Work Boots [] Rubber Boots () Leather
Protection (Needed for the Job):
ner Gloves [] PVC Gloves [] Neoprene Gloves [X] Rubber [] Other:
g Protection: [] Ear Plugs [] Ear Muffs [] Other:
ive Clothing (Needed for the Job):
aminated Dive Suit [] Cooling Suit [] Hot Water Dive Suit () Potable Water Dive Suit () Dry Suit
IEX [X] TYVEK [] Slicker Suit [] Acid Suit [] Other:

1 Stowth	Helmet () Superlite	() Miller	[X] Desco	() Band mask	() Aga	() other	
"	Bailout PSI 2500		Communications yes				
2	Helmet () Superlite	() Miller	() Desco	() Band mask	() Aga	() other	
	Bailout PSI		Communications				
3	Helmet () Superlite	() Miller	() Desco	() Band mask	() Aga	() other	
	Bailout PSI		Communications				
	Helmet () Superlite	() Miller	() Desco	() Band mask	() Aga	() other	
	Bailout PSI		Communications				

nal Back-up Air Supply PSI 3000 Location Rack Additional Back-up Air Supply PSI Location
nal Back-up Air Supply PSI Stby Location Bottle 3200 Additional Back-up Air Supply PSI Location

8·31·05 Thatcher Eng.

yx Special Services, Inc — MARINE SERVICES — Job Safety Analysis

In Harbor & Canal Pipe Removal
ion/Unit: " " " "
Emergency #:
visor's Name: Beaudoin
ct Number 140159E.05 072 Job Description:

Contact: Tom Scheffer
Time JSA Completed: 0800
Emergency Shower and Eyewash Location:

Date: 8·31·05
Person Initiating JSA: Beaudoin

of Permit Required:
neral Safe Work Permit
cavation Permit
[ ] Hot Work Permit unless Burning is required
[X] No Permit Required
[ ] Confined Space Permit
[ ] Other:

gency Data:
Direction: out of South
dary Evacuation Point: E & E Trailer
ctinguisher Available: yes
Primary Evacuation Point: Thatcher Trailer
Backup Emergency Communications:
Inspection Date: 2·6·05 Is Pin Intact: [X] Yes [ ] No

nal Protective Equipment (PPE) Assessment Checklist: Place an "X" next to each item needed for the job.

d Face Protection (Needed for the Job):
ty Glasses [ ] Goggles [ ] Face Shield [ ] Welding Shield [ ] Other:
Protection:
d Hat ( ) Welding Shied [ ] Other:
rotection (Needed for the Job):
Boot [X] Steel Toed Work Boots [ ] Rubber Boots ( ) Leather
Protection (Needed for the Job):
ner Gloves [ ] PVC Gloves [ ] Neoprene Gloves [X] Rubber [ ] Other:
g Protection: [ ] Ear Plugs [ ] Ear Muffs [ ] Other:
ive Clothing (Needed for the Job):
aminated Dive Suit [ ] Cooling Suit [ ] Hot Water Dive Suit ( ) Potable Water Dive Suit ( ) Dry Suit
TEX [X] TYVEK [ ] Slicker Suit [ ] Acid Suit [ ] Other:

Stowitt	Helmet ( ) Superlite	( ) Miller	[X] Desco	( ) Band mask	( ) Aga	( ) other	
"	Bailout PSI 2500		Communications yes				
	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other	
	Bailout PSI		Communications				
	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other	
	Bailout PSI		Communications				
	Helmet ( ) Superlite	( ) Miller	( ) Desco	( ) Band mask	( ) Aga	( ) other	
	Bailout PSI		Communications				

al Back-up Air Supply PSI 3000 Location Rack Additional Back-up Air Supply PSI Location
al Back-up Air Supply PSI Stby Location Bottle 3200 Additional Back-up Air Supply PSI Location

fined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

: Onyx Confined Space Procedures been explained to entire crew N/A [] Yes [] No **If no, review now

Confined Space Evaluation been Conducted and Signed by Entire Crew [] Yes [] No

s/Equipment: Are the following conditions met Place an "X" next to each item needed for the job.

Equipment Fueled

ave all bail-out bottle been gauge.

ave communications been tested in dive helmets.

l Safety Guards are in Place [ ] Lock-Out Tag-Out, [ ] Anti Rotation N/A.

ıdders installed and secured in place.

ımp Equipment checked out N/A.

ɔses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.

l Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

Hazard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
s: Fall Protection, Breaking the Plane of a ned Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground; Trip Hazards	No running / Watch Footing
ıicals/Materials: In immediate Area or Brought e for Task (MSDS Available & Reviewed)	Oily Mat'l in Water	Use Rubber Gloves.
onment: Area Barricaded, Noise, Weather, Wind ion, Lighting, Heat, Hazardous Atmosphere, etc.	Wind Direction For Compressor	be alert For Wind Changes
cal: Body Positioning, Wind Direction, Pinch , Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane Usage.	be CareFull w/ Rigging & Crane Directio
tial (Stored) Energy: Lockout/Tagout in Place, Tested and Used, Power Lines, Static Elect., etc.	Mud Slides	Diver be aware. Have jet available @ all Times
Equipment: Hazards of Tools, Heavy nery, Pumps, Jetting equip. etc.	Crane Picks.	CareFull of other Workers
lding: Scaffold Tagged, Pre-shift Inspection tag, nspected, Fall Protection, etc.	Walk ways	CareFull of Footing, avoid structures
: List any Other Hazards that may be Present on ob (i.e. Pinch Points, Tripping Hazards).		

cidents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or nce with any safety matters, or Call 24hr Dispatch (800) 688-4005.

E READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO AFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

- 3/6/03

ined Space: [ ] N/A Will you have to break the plane of the vessel at any point during the operation? ( ) Yes ( ) No

If "YES" a Confined Space Entry Permit is REQUIRED!!!!!!

Onyx Confined Space Procedures been explained to entire crew N/a [] Yes [] No **If no, review now

Confined Space Evaluation been Conducted and Signed by Entire Crew N/a [] Yes [] No

s/Equipment: Are the following conditions met Place an "X" next to each item needed for the job

Equipment Fueled

ve all bail-out bottle been gauge.

ve communications been tested in dive helmets.

Safety Guards are in Place [] Lock-Out Tag-Out, [] Anti Rotation N/a.

dders installed and secured in place.

mp Equipment checked out N/a.

ses have Been Inspected - Current Quarterly Inspection, No Braids showing/Torn.

Tools/Equipment Needed for the Job are On-site and in Serviceable Condition

azard Assessment:

TYPES OF HAZARDS	POTENTIAL HAZARDS IDENTIFIED	HOW TO ELIMINATE/PROTECT FROM HAZARD
s: Fall Protection, Breaking the Plane of a ed Space, Uneven & Elevated Surfaces, etc.)	Uneven Ground; Trip Hazards	No running / Watch Footing
icals/Materials: In immediate Area or Brought e for Task (MSDS Available & Reviewed)	Oily Mat'l in Water	Use Rubber Gloves.
onment: Area Barricaded, Noise, Weather, Wind on, Lighting, Heat, Hazardous Atmosphere, etc.	Wind Direction For Compressor	be alert For Wind Changes
al: Body Positioning, Wind Direction, Pinch Lifting, Pulling, Hot/Cold Surfaces, etc.	Crane Usage.	be Carefull w/ Rigging & Crane Direction
ial (Stored) Energy: Lockout/Tagout in Place, Tested and Used, Power Lines, Static Elect., etc.	Mud Slides	Diver be aware - Have jet available @ all times.
Equipment: Hazards of Tools, Heavy ery, Pumps, Jetting equip. etc.	Crane Picks.	Carefull of other Workers
ding: Scaffold Tagged, Pre-shift Inspection tag, spected, Fall Protection, etc.	Walk ways	Carefull of Footing around structure
List any Other Hazards that may be Present on b (i.e. Pinch Points, Tripping Hazards).		

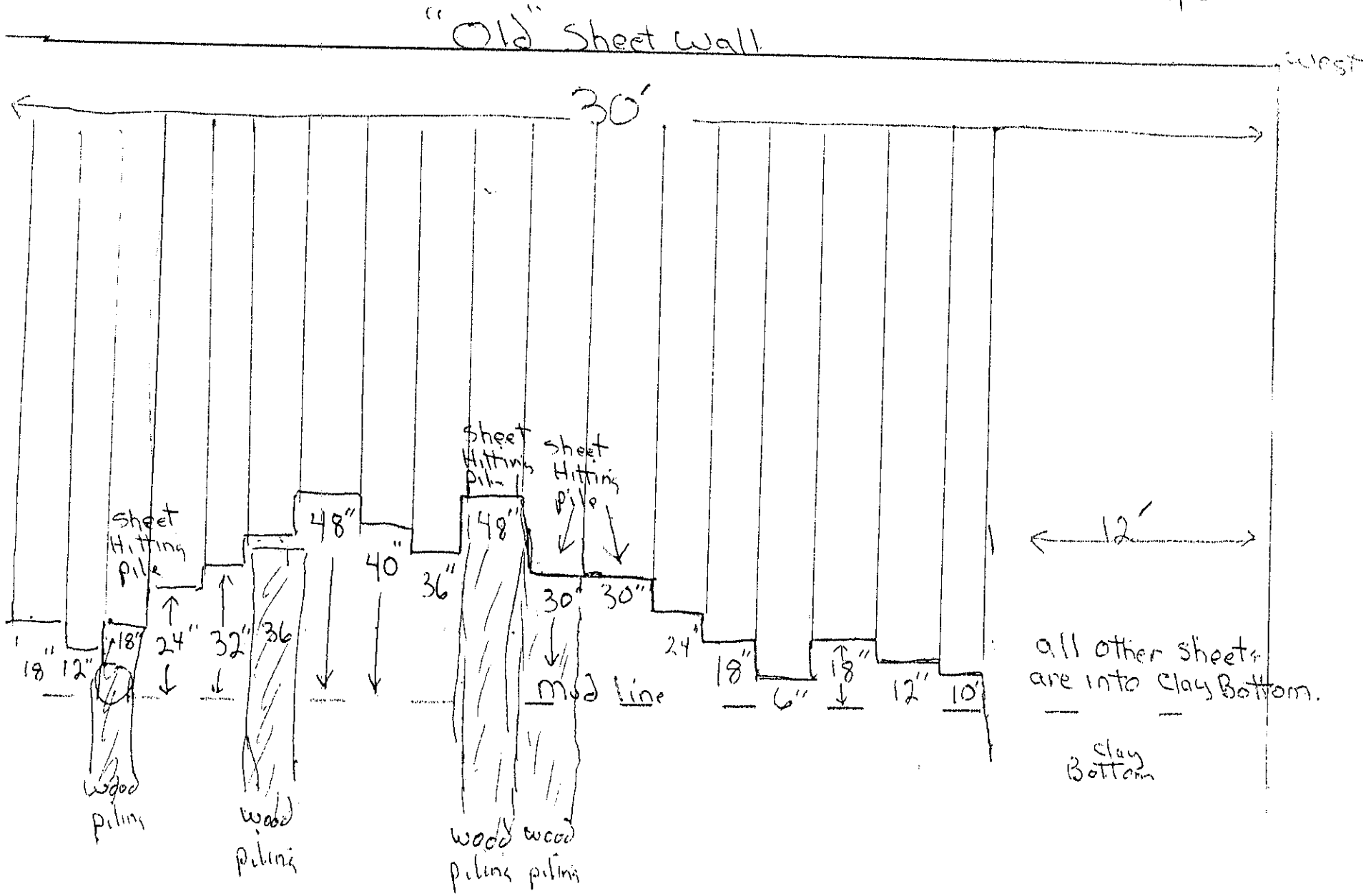
idents Must Be Reported Immediately to Your Supervisor and the Customer. Contact Health and Safety Division (920-749-8110) for Emergencies or ce with any safety matters, or Call 24hr Dispatch (800) 688-4005.

I READ AND UNDERSTAND THE JSA AND ALL ITS PARTS AND DO AGREE WITH THE CONTENTS. I AGREE TO ADHERE TO AFETY PRECAUTIONS AND PROCEDURES TO COMPLETE THIS JOB SAFELY:

3-31-03

Jacking Pit Facing River

8-31-05
Thatcher sheet inspection



IHCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:34:15 31-Aug
Elapsed time: 00:25:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 09:34:15 Aug 31
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:34:15 Aug 31
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	31-Aug	09:39:15	0

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:39:54 31-Aug
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 11:39:54 Aug 31
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 11:39:54 Aug 31
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	31-Aug	11:44:54	0.002

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 14:23:55 31-Aug
Elapsed time: 00:35:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 14:23:55 Aug 31
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:23:55 Aug 31
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	31-Aug	14:28:55	0

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:14:07 31-Aug
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.000 mg/m³
Time at maximum: 15:14:07 Aug 31
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:14:07 Aug 31
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg (mg/m³)
1	31-Aug	15:19:07	0

8-31-05

WIND - NNE

- 41° 38.833 N
087° 29.223 W

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=391114.8

ARCO SHED

ARCO ELECTRICAL SHED

TRAILER AREA

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 9+00 16+00 17+00 18+00

ARCO SHED

DREDGE AREA #2

DREDGE AREA #1

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-16
EL.=592.10

LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMO	
CHECKED		
APPROVED		
SCALE	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
LOCATION 083105

DRAWING SIZE	PROJECT NO.	DWG NO.	REV.
A	030244	ORAM 083105	C

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal

Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
8-31-05 0811	PDR	Ben Letany	Zero Cal.	"Cal OK"	Sunny, Warm, NNE WIND 10 MPH

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

The Weather Channel

8-31-05

Bringing

Local Weather Enter city or US zip See weather related to GO

Get 1-click access to your local weather

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid	Visib.	Press.	Wind
4:45 AM	Mostly Cloudy 70°F	70°F	63°F	78%	Unlimited	29.75	From NNE 9mph
Sunrise at 6:15 AM							
6:50 AM	Mostly Cloudy 70°F	70°F	66°F	88%	Unlimited	29.78 ↑	From WNW 9mph
7:47 AM	Cloudy 70°F	70°F	66°F	88%	Unlimited	29.81 ↑	From NW 9mph
8:47 AM	Mostly Cloudy 75°F	77°F	68°F	78%	Unlimited	29.82 ↑	From NW 9mph
9:46 AM	Cloudy 73°F	73°F	68°F	83%	Unlimited	29.84 ↑	From NNW 9mph
10:50 AM	Mostly Cloudy 75°F	77°F	66°F	73%	Unlimited	29.84 →	From N 9mph
11:50 AM	Mostly Cloudy 77°F	79°F	66°F	69%	Unlimited	29.85 ↑	From N 9mph
12:50 PM	Mostly Cloudy 77°F	79°F	68°F	74%	Unlimited	29.85 →	From N 9mph
1:50 PM	Mostly Cloudy 77°F	79°F	68°F	74%	Unlimited	29.86 ↑	From NNE 9mph
2:50 PM	Partly Cloudy 77°F	79°F	66°F	69%	Unlimited	29.85 ↓	From NNE 9mph
3:50 PM	Mostly Cloudy 75°F	76°F	64°F	69%	Unlimited	29.86 ↑	From N 9mph
4:53	Partly	76°F	63°F	65%	Unlimited	29.86 →	From NNE

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Special Offers in East Chica

Crown Point IN Free R cation Pa

PM	Cloudy 75°F						9mph
5:50 PM	Partly Cloudy 75°F	76°F	64°F	69%	Unlimited	29.87 ↑	From NNE 9mph
6:50 PM	Partly Cloudy 73°F	73°F	64°F	73%	Unlimited	29.87 →	From NNE 7mph
Sunset at 7:25 PM							
8:50 PM	Clear 63°F	63°F	59°F	88%	Unlimited	29.90 ↑	Variable 6mph
9:50 PM	Clear 61°F	61°F	59°F	94%	Unlimited	29.90 →	Variable 5mph

Back to previous page

FREE Trial: Faster Radar Maps & No Ads - Learn More

Departing from: Depart date: mm/dd/yy

Going to: Return date: mm/dd/yy

Number of Adults: 1

Weather for Your Vacation

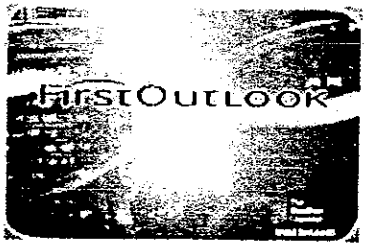
Get More Vacation Information
For East Chicago, IN (46312)
OR
Enter city or zip GO!

Family Travel GO!

- Travelwise Forecast
- Travel Photo Gallery
- Airport Delays and Conditions
- Vacation Destination Finder

What's on The Weather Channel

Find TWC on your TV



On-Air Schedule (ET)

Now | First Outlook

9 AM | Day Planner

12 PM | Weather Center

Tune to The Weather Channel Radio in your area!

Show this page in: English Units Metric Units

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www homebuying com

Feature Finds

Expedia.com See our deals
Pick the Flight and Hotel You Want. Huge Savings at Expedia

Orchard MasterC credit

This Week's Features

NEW: PetCast
Personal PetCast
View pet p your local

Driving in Rain
Know what your car sl

Summer Adventure
Find perfec your sumn

Mobile Weather
Mobile
Track Hur cell phone

Travel

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 287

DATE 01 Sep 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

CONTRACTOR Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 61 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher began placing CA1 stone backfill in the coffer dam. The lower support ring was also removed. EQ received and staged the backfill stone.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, tthree personnel form Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 287

DATE 01 Sep 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912F5-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
		Total 7.0	56.0

Total hours worked to date: 6,500.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CR02136	Small Excavator	0.0	8.0
		Total 0.0	16.0

Total operating hours to date: 1,248.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE 9/2/5	SUPERINTENDENT'S INITIALS	DATE 9/2/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:57:22 01-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.059 mg/m³
Time at maximum: 09:57:38 Sep 01
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 09:57:52 Sep 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Sep	10:02:22	0.004

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 12:24:01 01-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.004 mg/m³
Time at maximum: 12:24:30 Sep 01
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 12:24:01 Sep 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Sep	12:29:01	0.001

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:17:22 01-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.230 mg/m³
Time at maximum: 13:21:33 Sep 01
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 13:17:22 Sep 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Sep	13:22:22	0.005

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:10:20 01-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.015 mg/m³
Time at maximum: 15:11:25 Sep 01
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 15:10:20 Sep 01
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	1-Sep	15:15:20	0.002

9-1-05

WIND - VARIABLE

- 41° 38.833 N
087° 29.223 W

METEROLOGICAL STATION LOCATION
NORTHING= 1511212.84 EASTING=

TRAILER AREA

ARCO SHED

ARCO ELECTRICAL SHED

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

ARCO SHED

DREDGE AREA #2

DREDGE AREA #1

INDIANA HARBOR CANAL

DREDGE AREA #3

HS/BM-IND-18
EL.=592.10

LEGEND

METEROLOGICAL STATION LOCATION

SAMPLE POINT LOCATION

0 100' 200'
50' 250'

N

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	D.TOMKO	4/23/05
CHECKED		
APPROVED		
SCALE:	NOTED	

INDIANA HARBOR CDF
OBSTRUCTION REMOVAL AREA
LOCATION 090105

DRAWING NO.	PROJECT NO	DWG NO.	SC.
A	030244	ORAM 090105	C

The Weather Channel

9-1-05

Bringing

Local Weather Enter city or US zip See weather related to ... GO

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Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:50 AM	Cloudy 68°F	68°F	64°F	88%	Unlimited	29.91	Variable 7mph
5:50 AM	Cloudy 70°F	70°F	66°F	88%	Unlimited	29.92 ↑	From SSW 9mph
Sunrise at 6:16 AM							
6:50 AM	Cloudy 70°F	70°F	66°F	88%	Unlimited	N/A	From SSW 9mph
7:50 AM	Cloudy 70°F	70°F	64°F	83%	Unlimited	29.93	From SSW 9mph
8:55 AM	Partly Cloudy 75°F	76°F	64°F	69%	Unlimited	29.94 ↑	From SW 12mph
9:50 AM	Mostly Cloudy 77°F	78°F	63°F	61%	Unlimited	29.94 →	From WSW 14mph
10:50 AM	Mostly Cloudy 79°F	80°F	63°F	57%	Unlimited	29.95	From W 14mph
11:50 AM	Mostly Cloudy 79°F	80°F	64°F	61%	Unlimited	29.97 ↑	From N 12mph
12:50 PM	Mostly Cloudy 79°F	80°F	64°F	61%	Unlimited	29.97 →	From N 7mph
1:51 PM	Partly Cloudy 82°F	83°F	61°F	48%	Unlimited	29.97 →	From N 7mph
2:50 PM	Partly Cloudy 81°F	81°F	61°F	51%	Unlimited	29.97 →	From NE 10mph
3:55 PM	Sunny 81°F	83°F	66°F	51%	Unlimited	29.97 →	From NE 12mph

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- Live local traffic reports

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local weather always on yo

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4:50 PM	Sunny 81°F	80°F	50°F	34%	Unlimited	29.97 →	From ENE 12mph
5:52 PM	Partly Cloudy 81°F	80°F	52°F	37%	Unlimited	29.97 →	Variable 6mph
6:55 PM	Partly Cloudy 77°F	78°F	61°F	57%	Unlimited	29.96 ↓	Variable 6mph
Sunset at 7:23 PM							
7:45 PM	Clear 70°F	70°F	59°F	68%	Unlimited	29.97 ↑	Variable 7mph
8:50 PM	Clear 63°F	63°F	57°F	82%	Unlimited	29.98 ↑	Variable 6mph
9:45 PM	Clear 61°F	61°F	57°F	88%	Unlimited	29.99 ↑	Variable 6mph

Back to previous page

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Departing from: Depart date: mm/dd/yy

Going to: Return date: mm/dd/yy

Number of Adults: 1

How Weather Affects Your Pets

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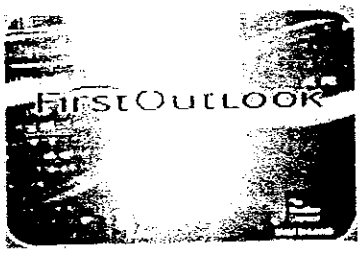
- Dog Care Guide
- Cat Care Guide

What's on The Weather Channel

Find TWC on your TV



On-Air Schedule (ET)

Now | First Outlook

9 AM | Day Planner

12 PM | Weather Center

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interactive home search tools tha
www.starhomefinders.com

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www.anconahomes.com

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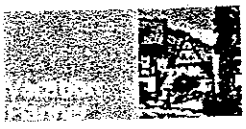

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 288

DATE 02 Sep 2005 - Friday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 57 °F, Max 82 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher completed placing CA1 stone backfill in the coffer dam

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, three personnel form Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 288

DATE 02 Sep 2005 - Friday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
		Total 7.0	56.0

Total hours worked to date: 6,556.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CRC2136	Small Excavator	0.0	8.0
		Total 0.0	16.0

Total operating hours to date: 1,264.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contrac plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE | DATE 9/6/5 | SUPERINTENDENT'S INITIALS | DATE 9/6/5

IHCDF Obstruction Removal Particulate Monitoring
pDR-1000 S/N: 00000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:12:11 02-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.067 mg/m³
Time at maximum: 09:16:31 Sep 02
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:12:11 Sep 02
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Sep	09:17:11	0.006

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:41:38 02-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.124 mg/m³
Time at maximum: 11:41:39 Sep 02
Max STEL Concentration: 0.030 mg/m³
Time at max STEL: 11:47:38 Sep 02
Overall Avg Conc: 0.074 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Sep	11:46:38	0.075

pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:53:55 02-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.321 mg/m³
Time at maximum: 13:53:56 Sep 02
Max STEL Concentration: 0.009 mg/m³
Time at max STEL: 13:58:55 Sep 02
Overall Avg Conc: 0.033 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Sep	13:58:55	0.031

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 15:05:14 02-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.061 mg/m³
Time at maximum: 15:05:31 Sep 02
Max STEL Concentration: 0.021 mg/m³
Time at max STEL: 15:13:14 Sep 02
Overall Avg Conc: 0.040 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	2-Sep	15:10:14	0.039

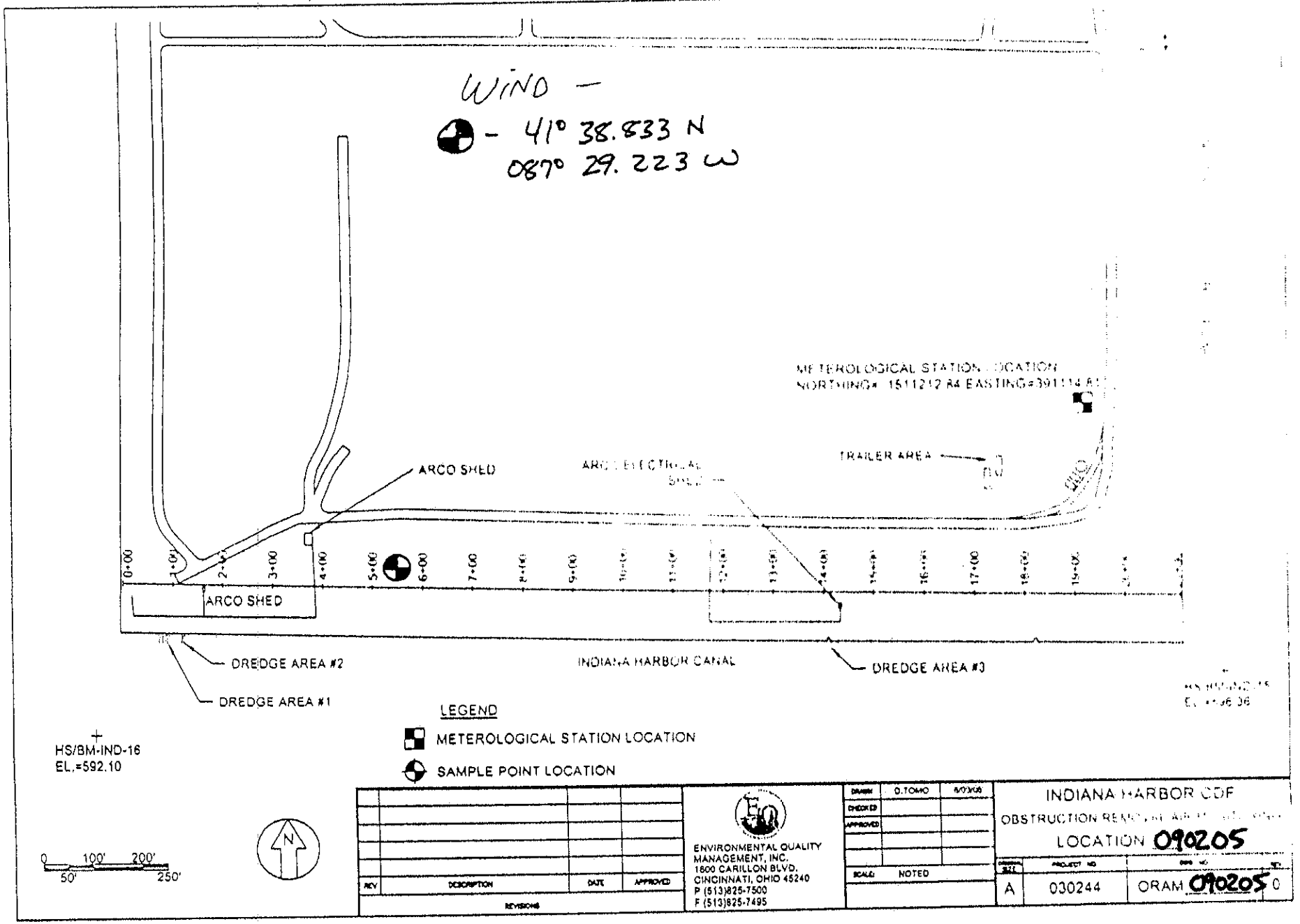
SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
9-2-05 0811	PDR	Ben Letany	Zero Calibration	"Cal ok"	Sunny, warm, Variable wind

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

9-7-05


WIND -
- 41° 38.833 N
087° 29.223 W
METEROLOGICAL STATION LOCATION
TRAILER AREA
ARCO SHED
ARCO SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
17+00
DREDGE AREA #2
DREDGE AREA #1
INDIANA HARBOR CANAL
DREDGE AREA #3
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1600 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
O.TOMO
CHECKED
APPROVED
SCALE: NOTED
INDIANA HARBOR CDF
OBSTRUCTION REMOVAL
LOCATION 090205
A
030244
ORAM 090205
0

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The Weather Channel

Bringing

Local Weather Enter city or US zip See weather related to ..... GO

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Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday	Today	Hour-by-Hour	Weekend	10-Day	Month

9-2-05

Katrina Coverage | Hurricane Central

Yesterday's Hourly Conditions as reported at Gary

September 2 Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press	Wind
4:50 AM	Clear 57°F	57°F	54°F	88%	Unlimited	30.04	Variable 7mph
5:50 AM	Clear 59°F	59°F	54°F	82%	Unlimited	30.05 ↑	Variable 7mph
Sunrise at 6:17 AM							
6:50 AM	Sunny 61°F	61°F	54°F	77%	Unlimited	30.07 ↑	Variable 7mph
7:50 AM	Partly Cloudy 66°F	66°F	55°F	68%	Unlimited	30.08 ↑	Variable 7mph
8:50 AM	Partly Cloudy 72°F	72°F	54°F	53%	Unlimited	30.09 ↑	Variable 7mph
9:50 AM	Partly Cloudy 77°F	76°F	48°F	36%	Unlimited	30.11 ↑	Variable 7mph
10:45 AM	Partly Cloudy 81°F	79°F	43°F	26%	Unlimited	30.11 →	From WNW 13mph
11:50 AM	Partly Cloudy 82°F	81°F	41°F	23%	Unlimited	30.12 ↑	From WNW 13mph
12:50 PM	Partly Cloudy 82°F	80°F	37°F	20%	Unlimited	30.11 ↓	From WNW 13mph
1:50 PM	Partly Cloudy 79°F	78°F	55°F	44%	Unlimited	30.10 ↓	From N 14mph
2:53 PM	Partly Cloudy 79°F	78°F	50°F	36%	Unlimited	30.10 →	From N 12mph

Today in East Chicago

- Allergy forecast & pollen counts
- Check the best time to exercise
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- Summer lawn & garden care
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local weather always on yo

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Special Offers in East Chic

3:50 PM	Mostly Cloudy 79°F	78°F	50°F	36%	Unlimited	30.09 ↓	From NE 12mph
4:50 PM	Mostly Cloudy 79°F	78°F	52°F	39%	Unlimited	30.09 →	From NE 9mph
5:48 PM	Partly Cloudy 79°F	78°F	48°F	34%	Unlimited	30.09 →	From NE 7mph
6:45 PM	Partly Cloudy 75°F	75°F	52°F	44%	Unlimited	30.08 ↓	calm
Sunset at 7:21 PM							
7:45 PM	Partly Cloudy 63°F	63°F	54°F	72%	10.0 miles	30.10 ↑	calm
8:45 PM	Partly Cloudy 61°F	61°F	55°F	82%	10.0 miles	30.11 ↑	calm
9:47 PM	Clear 57°F	57°F	54°F	88%	10.0 miles	30.12 ↑	calm

Back to previous page

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For East Chicago, IN (46312)

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On-Air Schedule (ET)

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12 PM	Weather Center
4 PM	Afternoon Outlook

This Week's Features

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View pet p your local

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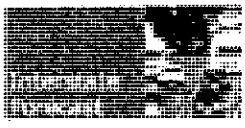

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CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 292

DATE 06 Sep 2005 - Tuesday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACTOR Environmental Quality Management, INC.

WEATHER Weather Caused No Delay
Temperature Mn 57 °F, Max 86 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
Thatcher began removal of the ssp for the coffer dam. It was noted that the north wall ssp was bowed inward (toward land). Work was discontinued until the ssp within the jacking pit is installed and backfill is placed in this area.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, Ed Wise EQM, three security guards from Task Force, five personnel form Thatcher, one operator and one laborer from Maintenance Dynamics.

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
Ben Letany held a tailgate safety meeting related to the work to be performed today

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 292

DATE 06 Sep 2005 - Tuesday

CONTRACT NUMBER W912P6-04-C-0006 NA

PROJECT Indiana Harbor CDF Obstruction Removal

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	1.0	8.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	1.0	8.0
Maintenance Dynamics	OPERATING ENGINEER	1.0	8.0
Thatcher Engineering	SUPERV - PILE DRIVING	1.0	8.0
Thatcher Engineering	OPERATING ENGINEER	2.0	16.0
Thatcher Engineering	PILE DRIVER OPERATOR	2.0	16.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
		Total 9.0	72.0

Total hours worked to date: 6,628.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description	Standby Hours	Operating Hours
40175	Crane	0.0	8.0
6CRC2136	Small Excavator	0.0	8.0
		Total 0.0	16.0

Total operating hours to date: 1,280.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contrac plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE — DATE 9/6/5

SUPERINTENDENT'S INITIALS — DATE 9/6/5

HCDF Obstruction Removal Particulate Monitoring
pDR-1000
Tag Number: 01
Number of logged points: 1
Start time and date: 09:33:12 06-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.151 mg/m³
Time at maximum: 09:35:03 Sep 06
Max STEL Concentration: 0.013 mg/m³
Time at max STEL: 09:41:42 Sep 06
Overall Avg Conc: 0.023 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Sep	09:38:12	0.035

pDR-1000 S/N: 00000
Tag Number: 02
Number of logged points: 1
Start time and date: 11:17:51 06-Sep
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.399 mg/m³
Time at maximum: 11:17:52 Sep 06
Max STEL Concentration: 0.016 mg/m³
Time at max STEL: 11:23:21 Sep 06
Overall Avg Conc: 0.012 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Sep	11:22:51	0.046

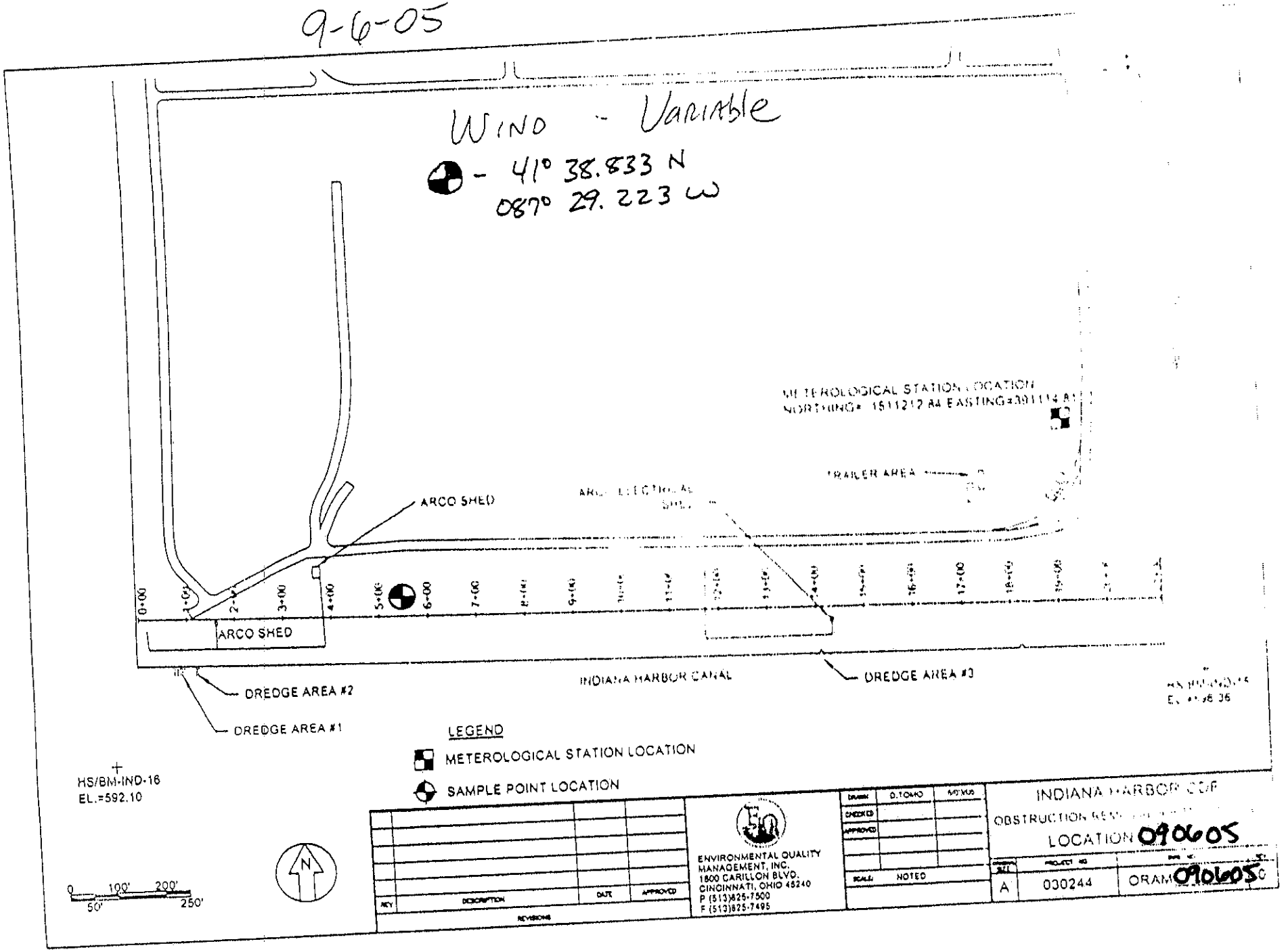
pDR-1000 S/N: 00000
Tag Number: 03
Number of logged points: 1
Start time and date: 13:38:31 06-Sep
Elapsed time: 00:10:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.056 mg/m³
Time at maximum: 13:38:50 Sep 06
Max STEL Concentration: 0.001 mg/m³
Time at max STEL: 13:39:01 Sep 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Sep	13:43:31	0.004

pDR-1000 S/N: 00000
Tag Number: 04
Number of logged points: 1
Start time and date: 14:36:35 06-Sep
Elapsed time: 00:05:00
Logging period (sec): 300
Calibration Factor (%): 100
Max Display Concentration: 0.056 mg/m³
Time at maximum: 14:40:21 Sep 06
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 14:36:35 Sep 06
Overall Avg Conc: 0.000 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	6-Sep	14:41:35	0.002

9-6-05


WIND - Variable
- 41° 38.833 N
087° 29.223 W
METEROLOGICAL STATION LOCATION
TRAILER AREA
ARCO SHED
ARCO SHED
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
INDIANA HARBOR CANAL
DREDGE AREA #2
DREDGE AREA #1
DREDGE AREA #3
HS/BM-IND-16
EL.=592.10
LEGEND
METEROLOGICAL STATION LOCATION
SAMPLE POINT LOCATION
0 100' 200'
50' 250'
N
REV
DESCRIPTION
DATE
APPROVED
REVISIONS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495
DRAWN
D.TOMKO
CHECKED
APPROVED
SCALE
NOTED
INDIANA HARBOR CDF
OBSTRUCTION
LOCATION 090605
A
030244
ORAM 090605

SAMPLING EQUIPMENT CALIBRATION LOG

Site Name: Indiana Harbor Obstruction Removal Project No.: 030244

DATE/TIME	INSTRUMENT (Mfg./Model)	CALIBRATED BY	STANDARD (concent.-units)	METER READING	COMMENTS/ AMBIENT CONDITIONS
9-6-05 0753	PDR	Ben Cebany	zero Calibration	"Cal OK"	Sunny, Hot, Variable WIND

N:\Forms\Forms\Indexed Forms\Sampling Equipment Calibration Log.wpd

The Weather Channel

9-6-05

Bringing

Local Weather Enter city or US zip See weather related to .... GO

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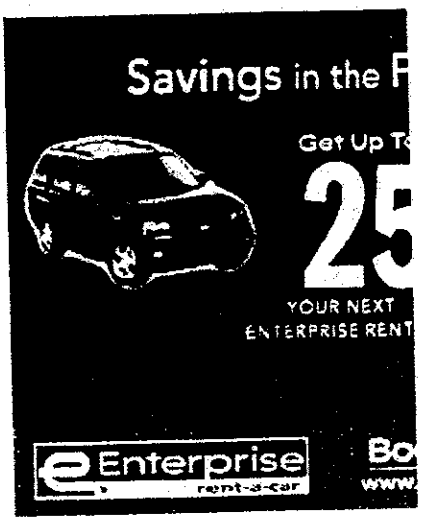
Home > Local Forecast > **Past Weather for East Chicago, IN (46312)**

Yesterday | Today | Hour-by-Hour | Weekend | 10-Day | Month

Yesterday's Hourly Conditions as reported at Gary

Yesterday Back to previous page

Time	Condition	Felt like	Dew Point	Humid.	Visib.	Press.	Wind
4:45 AM	Partly Cloudy 64°F	64°F	57°F	77%	10.0 miles	30.26	Variable 5mph
5:45 AM	Partly Cloudy 59°F	59°F	55°F	88%	10.0 miles	30.27 ↑	Variable 5mph
Sunrise at 6:21 AM							
6:50 AM	Partly Cloudy 57°F	57°F	55°F	94%	10.0 miles	30.25 ↓	Variable 5mph
7:50 AM	Partly Cloudy 84°F	84°F	59°F	42%	10.0 miles	30.29 ↑	Variable 5mph
8:45 AM	Partly Cloudy 70°F	70°F	59°F	68%	Unlimited	30.29 →	Variable 5mph
9:45 AM	Partly Cloudy 75°F	76°F	61°F	61%	10.0 miles	30.29 →	Variable 5mph
10:45 AM	Partly Cloudy 79°F	79°F	59°F	51%	10.0 miles	30.28 ↓	Variable 5mph
11:50 AM	Partly Cloudy 81°F	81°F	57°F	45%	10.0 miles	30.27 ↓	Variable 6mph
12:45 PM	Partly Cloudy 82°F	83°F	59°F	45%	10.0 miles	30.26 ↓	Variable 7mph
1:45 PM	Partly Cloudy 84°F	84°F	59°F	42%	10.0 miles	30.24 ↓	Variable 7mph
2:45 PM	Partly Cloudy 84°F	85°F	61°F	45%	10.0 miles	30.23 ↓	Variable 7mph
	Partly						



Today in East Chicago

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Grayslake Real Estate

3:50 PM	Cloudy 86°F	86°F	59°F	40%	10.0 miles	30.21 ↓	Variable 7mph
4:50 PM	Partly Cloudy 84°F	86°F	64°F	51%	10.0 miles	30.20 ↓	From NE 9mph
5:50 PM	Partly Cloudy 81°F	82°F	64°F	58%	10.0 miles	30.21 ↑	From NE 8mph
6:50 PM	Partly Cloudy 79°F	80°F	63°F	57%	10.0 miles	30.22 ↑	Variable 5mph

Sunset at 7:14 PM

7:50 PM	Partly Cloudy 75°F	77°F	66°F	73%	10.0 miles	30.22 →	From ENE 9mph
8:50 PM	Partly Cloudy 70°F	70°F	66°F	88%	7.0 miles	30.23 ↑	calm
9:50 PM	Partly Cloudy 66°F	66°F	63°F	88%	7.0 miles	30.23 →	calm

Back to previous page

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For East Chicago, IN (46312)
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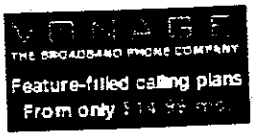
Feature Finds



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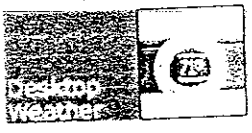

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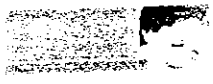
Health



CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
293

DATE
07 Sep 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 68 °F, Max 93 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work ws performed. USACE/Was awaiting the EQ/Thatcher proposal for the steel retaining wall in the jacking pit.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM and Ed Wise EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 293

DATE 07 Sep 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EOM	SAFETY ENGINEER - ON SITE		1.0	8.0
EOM	SUPER - JOB		0.0	0.0
EOM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date: 6,644.0		Total	2.0	16.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
6CRC2136	Small Excavator		8.0	0.0
Total operating hours to date: 1,280.0		Total	16.0	0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
	9/8/5		9/8/5

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
294

DATE
08 Sep 2005 - Thursday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 68 °F, Max 79 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
No work ws performed. USACE/Was awaiting the EQ/Thatcher proposal for the steel retaining wall in the jacking pit.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM, and Ed Wise EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 294

DATE 08 Sep 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		1.0	8.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	6,660.0	Total	2.0	16.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		8.0	0.0
6CRC2136	Small Excavator		8.0	0.0
Total operating hours to date: 1,280.0		Total	16.0	0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE
[signature]	9/9/5	[signature]	9/9/5

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
295

DATE
09 Sep 2005 - Friday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC

WEATHER
Weather Caused No Delay
Temperature Mn 61 °F, Max 86 °F; No Precipitation; 9 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ continued with miscellaneous site cleanup and demobilization. Air sampling data sheets are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INTIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 295

DATE 09 Sep 2005 - Friday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		0.0	0.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	6,668.0	Total	1.0	8.0

EQUIPMENT HOURS

The following equipment hours were Reported today:

Serial Number	Description		Standby Hours	Operating Hours
40175	Crane		0.0	0.0
6CRC2136	Small Excavator		0.0	0.0
Total operating hours to date: 1,280.0		Total	0.0	0.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 298 Page 1 of 2 DATE 12 Sep 2005 - Monday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC	WEATHER Weather Caused No Delay Temperature Min 70 °F, Max 91 °F; No Precipitation; 14 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ continued with miscellaneous site cleanup and demobilization. Air sampling data sheets are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

~~No QC Punch List items were issued today~~

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 298

DATE 12 Sep 2005 - Monday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		0.0	0.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	6,676.0	Total	1.0	8.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 1,280.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 299 Page 1 of 2 DATE 13 Sep 2005 - Tuesday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC	WEATHER Weather Caused No Delay Temperature Min 51 °F, Max 65 °F; No Precipitation; 14 MPH Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ continued with miscellaneous site cleanup and demobilization. Air sampling data sheets are attached.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 299

DATE 13 Sep 2005 - Tuesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	0.0	0.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	1.0	8.0

Total hours worked to date: 6,684.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 1,280.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER
300

DATE
14 Sep 2005 - Wednesday

PROJECT
Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER
W912P6-04-C-0006 NA

CONTRACTOR
Environmental Quality Management, INC.

WEATHER
Weather Caused No Delay
Temperature Min 0 °F, Max 0 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ continued with miscellaneous site cleanup and demobilization.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary.

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 300

DATE 14 Sep 2005 - Wednesday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification	Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR	0.0	0.0
EQM	SAFETY ENGINEER - ON SITE	0.0	0.0
EQM	SUPER - JOB	0.0	0.0
EQM	CONSTRUCTION INSPECTOR	1.0	8.0
Griffin Dewatering	LABORERS	0.0	0.0
Griffin Dewatering	OPERATING ENGINEER	0.0	0.0
Maintenance Dynamics	LABORERS	0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING	0.0	0.0
Thatcher Engineering	OPERATING ENGINEER	0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR	0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT	0.0	0.0
Thatcher Engineering	DIVER PUMPER	0.0	0.0
	Total	1.0	8.0

Total hours worked to date: 6,692.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 1,280.0

ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION - CIVIL	REPORT NUMBER 301 Page 1 of 2 DATE 15 Sep 2005 - Thursday
PROJECT Indiana Harbor CDF Obstruction Removal	CONTRACT NUMBER W912P6-04-C-0006 NA
CONTRACTOR Environmental Quality Management, INC.	WEATHER Weather Caused No Delay Temperature Min 0 °F, Max 0 °F; No Precipitation; No Wind

QC NARRATIVES

Did anything develope that may lead to a Change Order/Claim?
No

Activities in Progress:
EQ continued with miscellaneous site cleanup and demobilization.

Were there any Delays in Work Progress today?
No

Work Force, Personnel On Site
Ben Letany EQM

General Comments:
Work proceeded without incident.

Verbal Instructions given by Government:
None.

Safety Inspection / Safety Meetings:
No construction work was performed and no safety meeting was held.

Safety: (Inspections made, Deficiencies noted):
None.

Safety: Corrective Action taken:
None necessary

PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)

No preparatory or initial inspections were held today

ACTIVITY START/FINISH

No activities were started or finished today

QC REQUIREMENTS

No QC requirements were completed today

QA/QC PUNCH LIST (Describe QC Punch List items issued, Report QC and QA Punch List items corrected)

No QC Punch List items were issued today

No Punch List items were corrected today

CONTRACTORS ON SITE (Report first and/or last day contractors were on site)

No contractors had their first or last day on site today

CONTRACTORS QUALITY CONTROL REPORT (QCR)
DAILY LOG OF CONSTRUCTION - CIVIL

REPORT NUMBER 301

DATE 15 Sep 2005 - Thursday

PROJECT Indiana Harbor CDF Obstruction Removal

CONTRACT NUMBER W912P6-04-C-0006 NA

LABOR HOURS

The following labor hours were Reported today:

Employer	Labor Classification		Number of Employees	Hours Worked
DLZ Industrial	SURVEYOR		0.0	0.0
EQM	SAFETY ENGINEER - ON SITE		0.0	0.0
EQM	SUPER - JOB		0.0	0.0
EQM	CONSTRUCTION INSPECTOR		1.0	8.0
Griffin Dewatering	LABORERS		0.0	0.0
Griffin Dewatering	OPERATING ENGINEER		0.0	0.0
Maintenance Dynamics	LABORERS		0.0	0.0
Maintenance Dynamics	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	SUPERV - PILE DRIVING		0.0	0.0
Thatcher Engineering	OPERATING ENGINEER		0.0	0.0
Thatcher Engineering	PILE DRIVER OPERATOR		0.0	0.0
Thatcher Engineering	PILE DRIVER OPER, BARGE MT		0.0	0.0
Thatcher Engineering	DIVER PUMPER		0.0	0.0
Total hours worked to date:	6,700.0	Total	1.0	8.0

EQUIPMENT HOURS

No equipment hours were Reported today

Total operating hours to date: 1,280.0

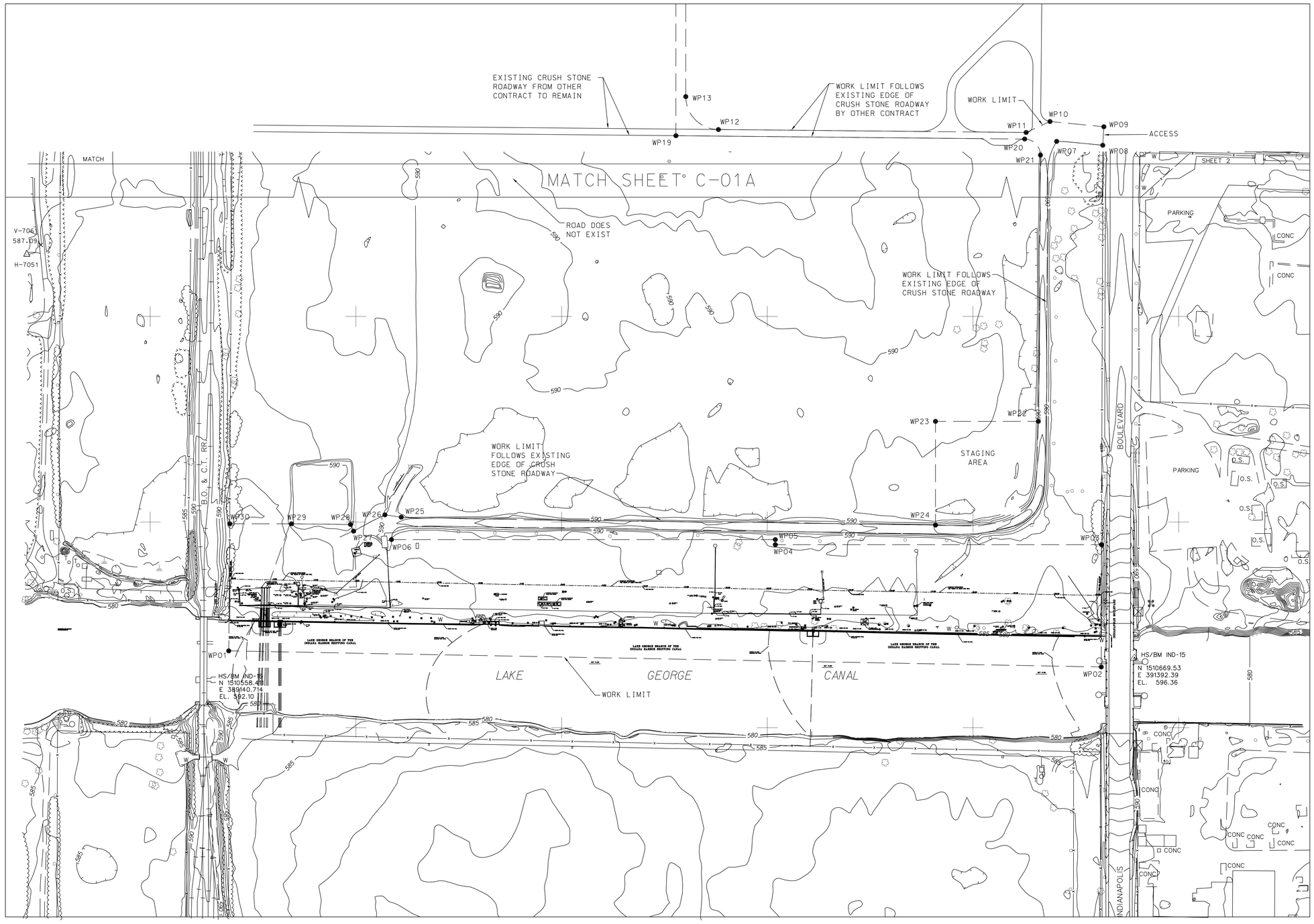
ACCIDENT REPORTING (Describe accidents)

No accidents reported today

CONTRACTOR CERTIFICATION **On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.**

QC REPRESENTATIVE'S SIGNATURE	DATE	SUPERINTENDENT'S INITIALS	DATE

Figures



NOTE:

1. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29.
THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM.
DATE OF PHOTOGRAPHY: 10-21-94
AERO-METRIC ENGINEERING PROJECT NO. 1940943

2. NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS
AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

3. CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE SPECIFIED WORK LIMITS
AND SHALL COORDINATE WITH OTHER CONTRACTORS ON OTHER PROJECTS USING THE
DEBRIS AREAS AND ROADS.

100 50 0 100 200
1 INCH = 100 FEET

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH
DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

WORK LIMITS, STAGING,
STORAGE & ACCESS

SHEET REFERENCE NUMBER:
C-01
SHEET 3 OF 18

PLOT DATE: $DATE$
FILENAME: C-01.DGN

NOTE:

1. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29.
THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM.
DATE OF PHOTOGRAPHY: 10-21-94
AERO-METRIC ENGINEERING PROJECT NO. 1940943

2. NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS
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1 INCH = 100 FEET

RECORD DRAWING
WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN	DATE: 28 SEPT 2004	
DRAWN BY: MVN	SCALE: AS SHOWN	
CHECKED BY: JT	CONTRACT NUMBER: W912P6-04-C-0006	
SUBMITTED BY:		DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

WORK LIMITS, STAGING,
STORAGE & ACCESS

SHEET
REFERENCE
NUMBER:
C-01A

SHEET 4 OF 18

PLOT DATE: $DATE$
FILENAME: C-01A.DGN

WORK LIMIT

WORK POINT	NORTHING	EASTING
WP01	1,510,686.80	389,190.97
WP02	1,510,647.65	391,311.88
WP03	1,510,945.05	391,312.48
WP04	1,510,945.05	390,519.62
WP05	1,510,957.42	390,519.62
WP06	1,510,957.42	389,586.56
WP07	1,511,925.64	391,203.39
WP08	1,511,916.24	391,315.55
WP09	1,511,961.25	391,318.17
WP10	1,511,973.96	391,187.27
WP11	1,511,947.29	391,129.29
WP12	1,511,954.46	390,381.20
WP13	1,512,034.45	390,301.97
WP14	1,512,405.67	390,301.97
WP15	1,512,905.67	390,301.97
WP16	1,512,905.67	389,701.97
WP17	1,512,405.67	389,701.97
WP18	1,512,405.67	390,277.97
WP19	1,511,939.45	390,277.97
WP20	1,511,931.33	391,125.71
WP21	1,511,892.15	391,164.10
WP22	1,511,244.92	391,158.89
WP23	1,511,244.92	390,908.89
WP24	1,510,992.62	390,908.89
WP25	1,511,011.91	389,610.34
WP26	1,511,017.54	389,570.65
WP27	1,510,977.93	389,494.35
WP28	1,510,994.01	389,487.01
WP29	1,510,995.78	389,343.60
WP30	1,510,995.78	389,193.53

CURVE FROM WP13 TO WP14

WORK POINT	NORTHING	EASTING
PC(WP12)	1,511,954.46	390,381.20
PI	1,511,955.22	390,301.97
CC	1,512,034.45	390,381.97
PT(WP13)	1,512,034.45	390,301.97

Radius = 80.00
Delta = 89°27'04" Right
Degree of Curvature(Arc) = 71°37'11"
Length = 124.90
Tangent = 79.24
Chord = 112.59

SURVEY CONTROLS

POINT NUMBER	COORDINATES		ELEV.	DESCRIPTION
	NORTHING	EASTING		
IND-97-001	1,514,502.32	389,205.50	614.96	BRASS CAP TYPE I
IND-97-002	1,513,692.89	391,248.16	609.96	BRASS CAP TYPE I
HS/MB-IND-15	1,510,669.53	391,392.39	596.36	BRASS CAP TYPE I
HS/BM-IND-16	1,510,558.41	389,140.71	592.10	BRASS CAP TYPE I
IRON ROD 22	1,510,831.71	389,389.04	586.42	IRON ROD

BASELINE CONTROL POINTS

STATION	NORTHING	EASTING
0+00	1,510,861.12	389,197.21
5+00	1,510,851.78	389,697.10
10+00	1,510,842.50	390,197.05
15+00	1,510,833.10	390,696.87
20+00	1,510,823.76	391,196.83
21+11.68	1,510,821.62	391,308.51

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH
DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

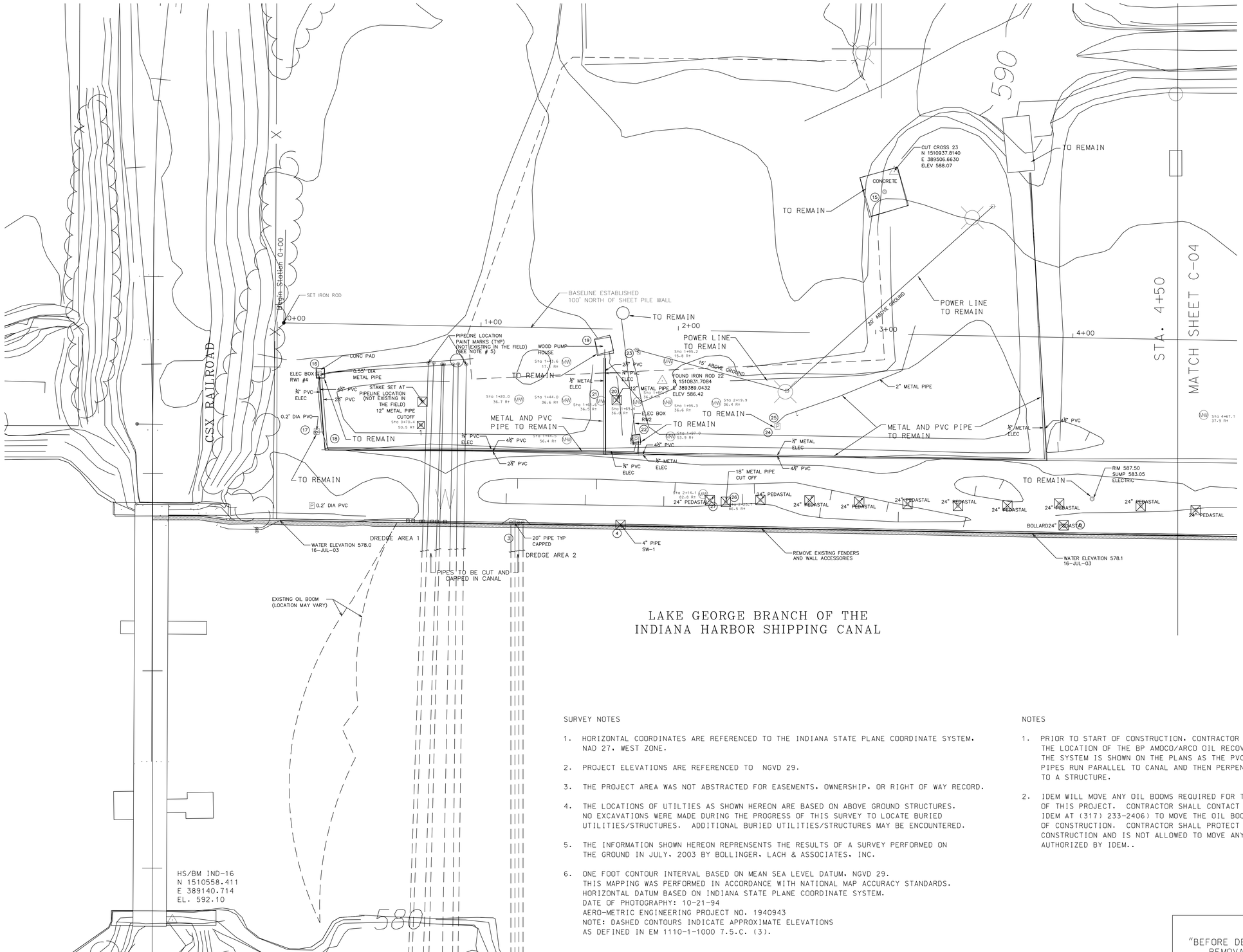
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

TABLE OF WORK LIMITS
AND SURVEY POINTS

SHEET REFERENCE NUMBER:
C-01B
SHEET 5 OF 18

PLOT DATE: $DATE$
FILENAME: C-01B.DGN



LAKE GEORGE BRANCH OF THE INDIANA HARBOR SHIPPING CANAL

SURVEY NOTES

1. HORIZONTAL COORDINATES ARE REFERENCED TO THE INDIANA STATE PLANE COORDINATE SYSTEM, NAD 27, WEST ZONE.
2. PROJECT ELEVATIONS ARE REFERENCED TO NGVD 29.
3. THE PROJECT AREA WAS NOT ABSTRACTED FOR EASEMENTS, OWNERSHIP, OR RIGHT OF WAY RECORD.
4. THE LOCATIONS OF UTILTIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.
5. THE INFORMATION SHOWN HEREON REPRENSENTS THE RESULTS OF A SURVEY PERFORMED ON THE GROUND IN JULY, 2003 BY BOLLINGER, LACH & ASSOCIATES, INC.
6. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29. THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM. DATE OF PHOTOGRAPHY: 10-21-94 AERO-METRIC ENGINEERING PROJECT NO. 1940943 NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

NOTES

1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY THE LOCATION OF THE BP AMOCO/ARCO OIL RECOVERY SYSTEM. THE SYSTEM IS SHOWN ON THE PLANS AS THE PVC AND METAL PIPES RUN PARALLEL TO CANAL AND THEN PERPENDICULAR TO A STRUCTURE.
2. IDEM WILL MOVE ANY OIL BOOMS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL CONTACT RYAN GROVES FROM IDEM AT (317) 233-2406) TO MOVE THE OIL BOOM PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL PROTECT THE OIL BOOMS DURING CONSTRUCTION AND IS NOT ALLOWED TO MOVE ANY OIL BOOMS UNLESS AUTHORIZED BY IDEM..

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US Army Corps of Engineers
Chicago District

SYMBOL	DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

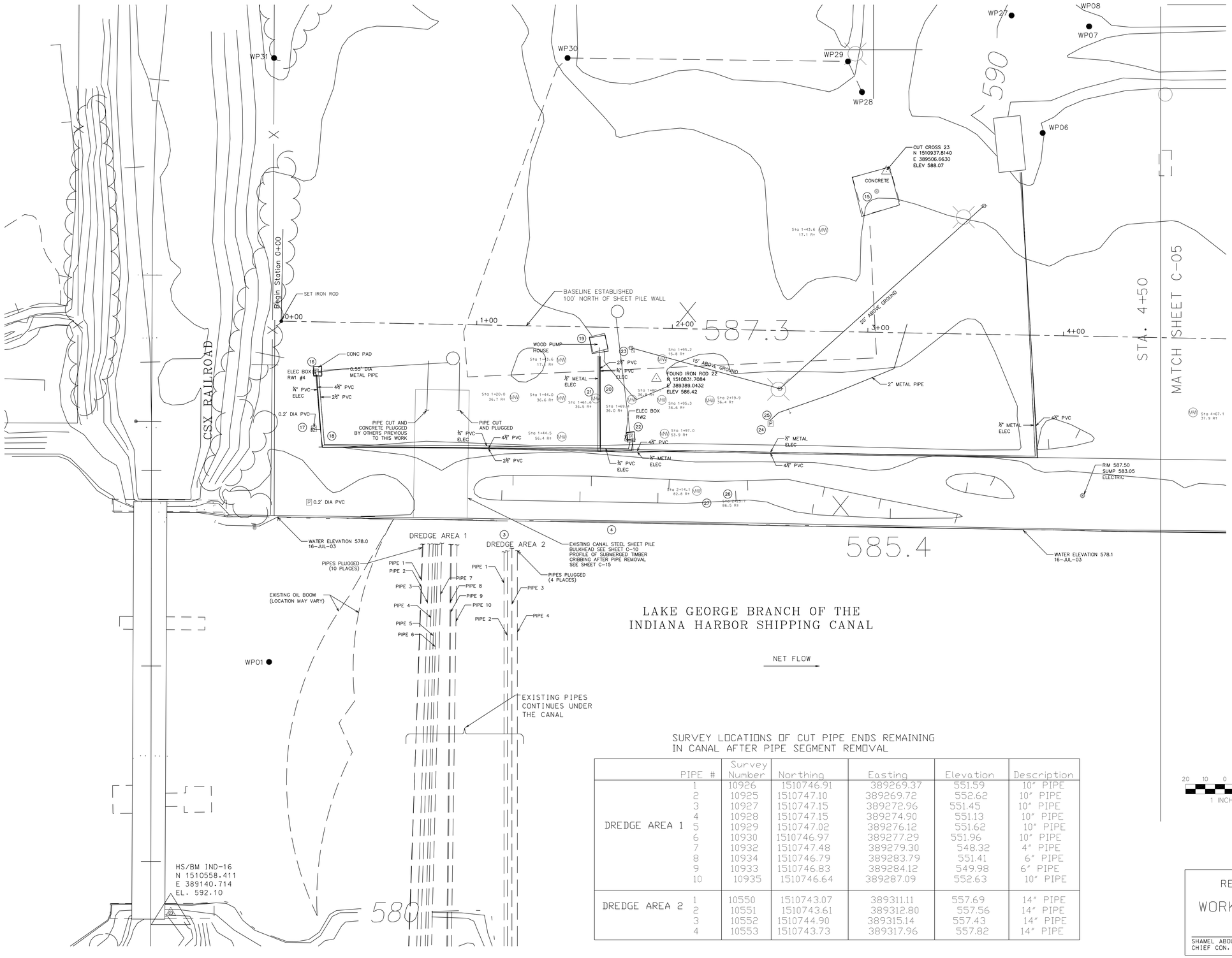
DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 0+00 TO 4+50

SHEET REFERENCE NUMBER:
C-02
SHEET 06 OF 21

PLOT DATE: 10/13/04
FILENAME: X



SURVEY LOCATIONS OF CUT PIPE ENDS REMAINING
IN CANAL AFTER PIPE SEGMENT REMOVAL

	PIPE #	Survey Number	Northing	Easting	Elevation	Description
DREDGE AREA 1	1	10926	1510746.91	389269.37	551.59	10" PIPE
	2	10925	1510747.10	389269.72	552.62	10" PIPE
	3	10927	1510747.15	389272.96	551.45	10" PIPE
	4	10928	1510747.15	389274.90	551.13	10" PIPE
	5	10929	1510747.02	389276.12	551.62	10" PIPE
	6	10930	1510746.97	389277.29	551.96	10" PIPE
	7	10932	1510747.48	389279.30	548.32	4" PIPE
	8	10934	1510746.79	389283.79	551.41	6" PIPE
	9	10933	1510746.83	389284.12	549.98	6" PIPE
	10	10935	1510746.64	389287.09	552.63	10" PIPE
DREDGE AREA 2	1	10550	1510743.07	389311.11	557.69	14" PIPE
	2	10551	1510743.61	389312.80	557.56	14" PIPE
	3	10552	1510744.90	389315.14	557.43	14" PIPE
	4	10553	1510743.73	389317.96	557.82	14" PIPE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

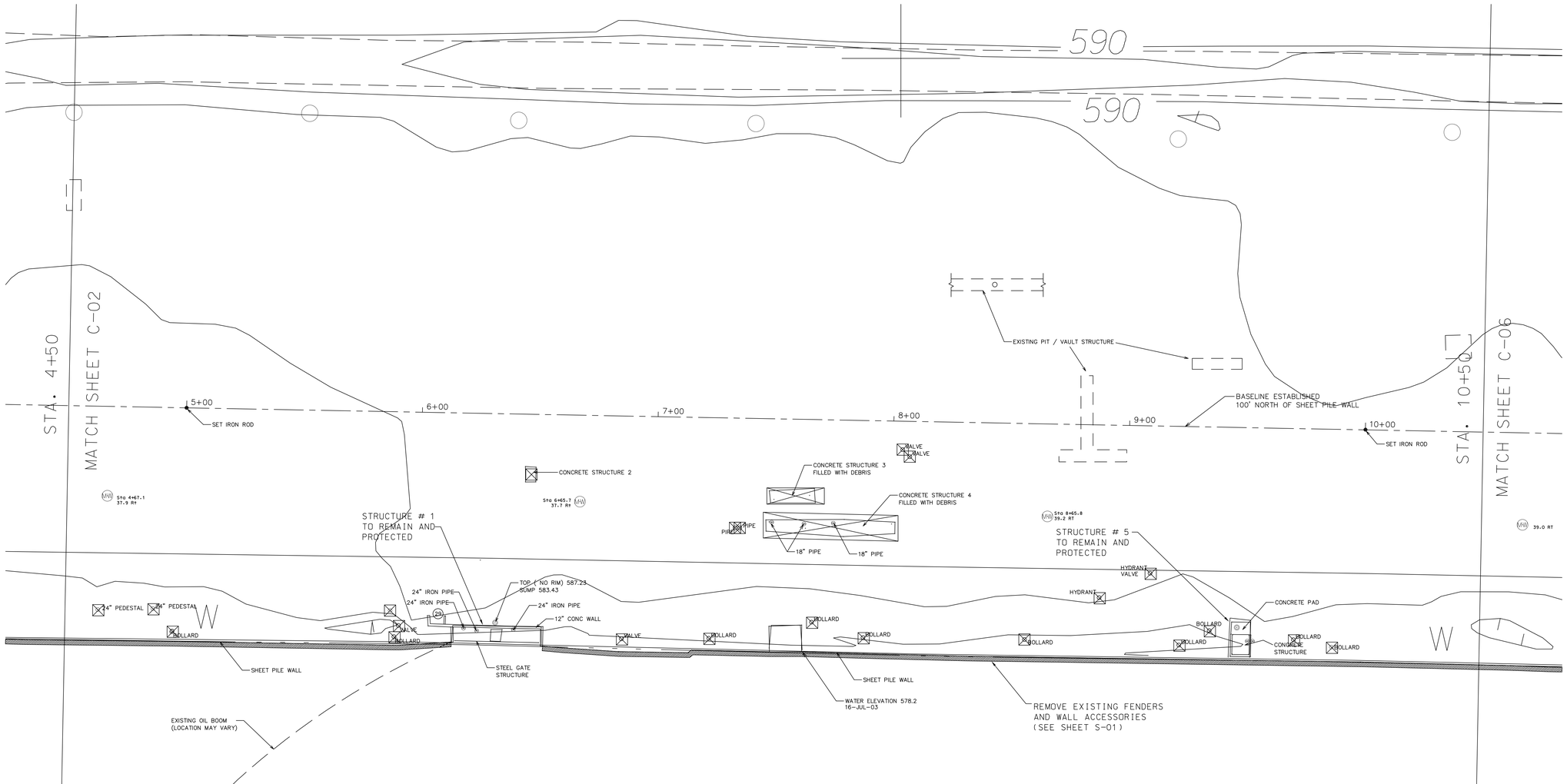
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
OBSTRUCTION REMOVAL AND
DEMOLITION PLAN
STA. 0+00 TO 4+50

SHEET REFERENCE NUMBER:
C-03
SHEET 7 OF 21

PLOT DATE: $DATE$
FILENAME: C-03.DGN



LAKE GEORGE BRANCH OF THE
INDIANA HARBOR SHIPPING CANAL

SURVEY NOTES

1. HORIZONTAL COORDINATES ARE REFERENCED TO THE INDIANA STATE PLANE COORDINATE SYSTEM, NAD 27, WEST ZONE.

2. PROJECT ELEVATIONS ARE REFERENCED TO NGVD 29.

3. THE PROJECT AREA WAS NOT ABSTRACTED FOR EASEMENTS, OWNERSHIP, OR RIGHT OF WAY RECORD.

4. THE LOCATIONS OF UTILTIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.

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6. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29. THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM. DATE OF PHOTOGRAPHY: 10-21-94 AERO-METRIC ENGINEERING PROJECT NO. 1940943 NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

NOTES

1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY THE LOCATION OF THE BP AMOCO/ARCO OIL RECOVERY SYSTEM. THE SYSTEM IS SHOWN ON THE PLANS AS THE PVC AND METAL PIPES RUN PARALLEL TO CANAL AND THEN PERPENDICULAR TO A STRUCTURE.

2. IDEM WILL MOVE ANY OIL BOOMS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL CONTACT RYAN GROVES FROM IDEM AT (317) 233-2406) TO MOVE THE OIL BOOM PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL PROTECT THE OIL BOOMS DURING CONSTRUCTION AND IS NOT ALLOWED TO MOVE ANY OIL BOOMS UNLESS AUTHORIZED BY IDEM.

20 10 0 20 40
1 INCH = 20 FEET

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US Army Corps of Engineers
Chicago District

SYMBOL	DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

AMENDMENT DESCRIPTION

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

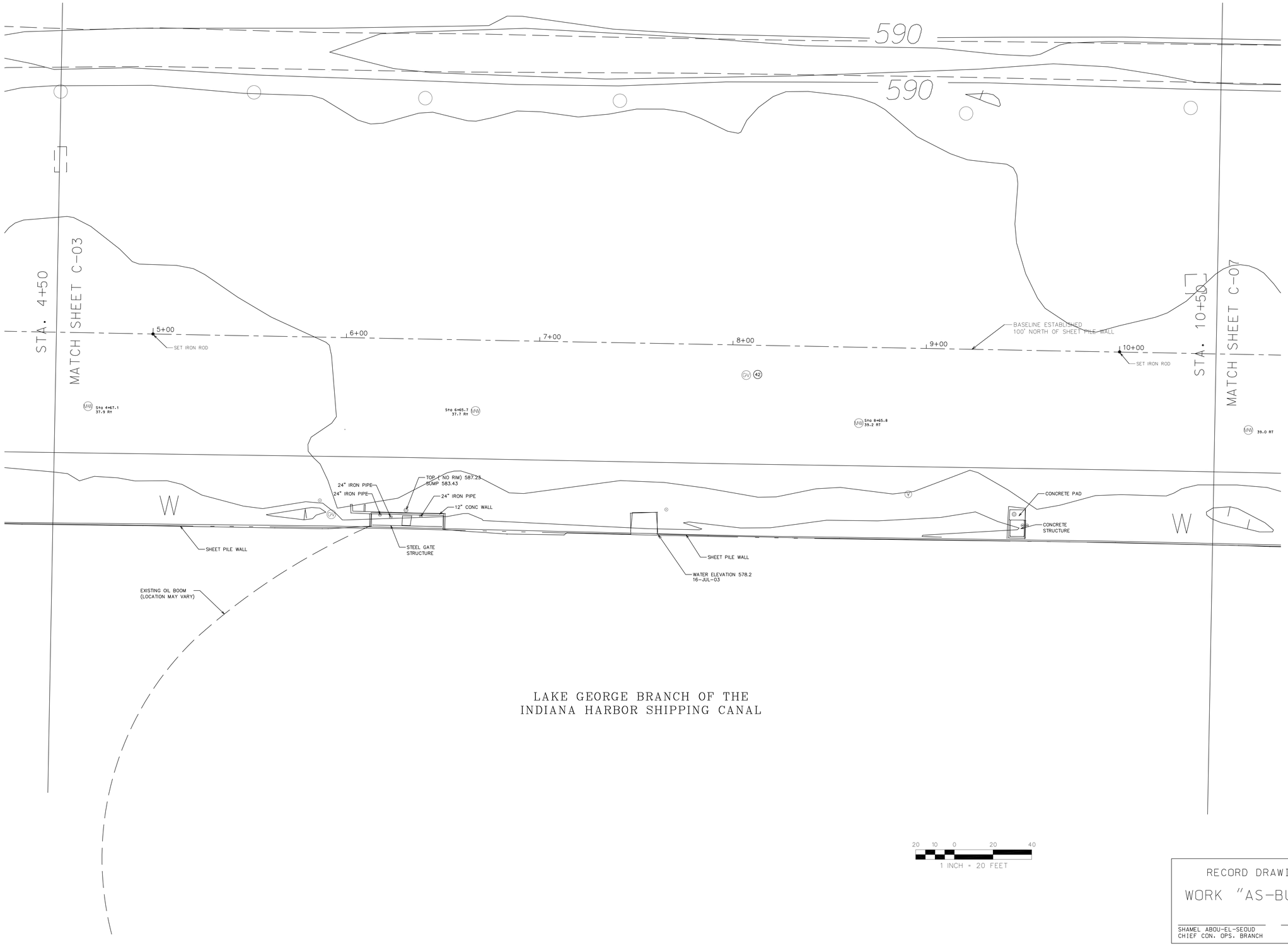
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
EXISTING CONDITION SURVEY
STA. 4+50 TO 10+50

SHEET REFERENCE NUMBER:
C-04
SHEET 8 OF 21

PLOT DATE: $DATE$
FILENAME: C-04.DGN



US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
OBSTRUCTION REMOVAL &
DEMOLITION AS BUILT
STA. 4+50 TO 10+50

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

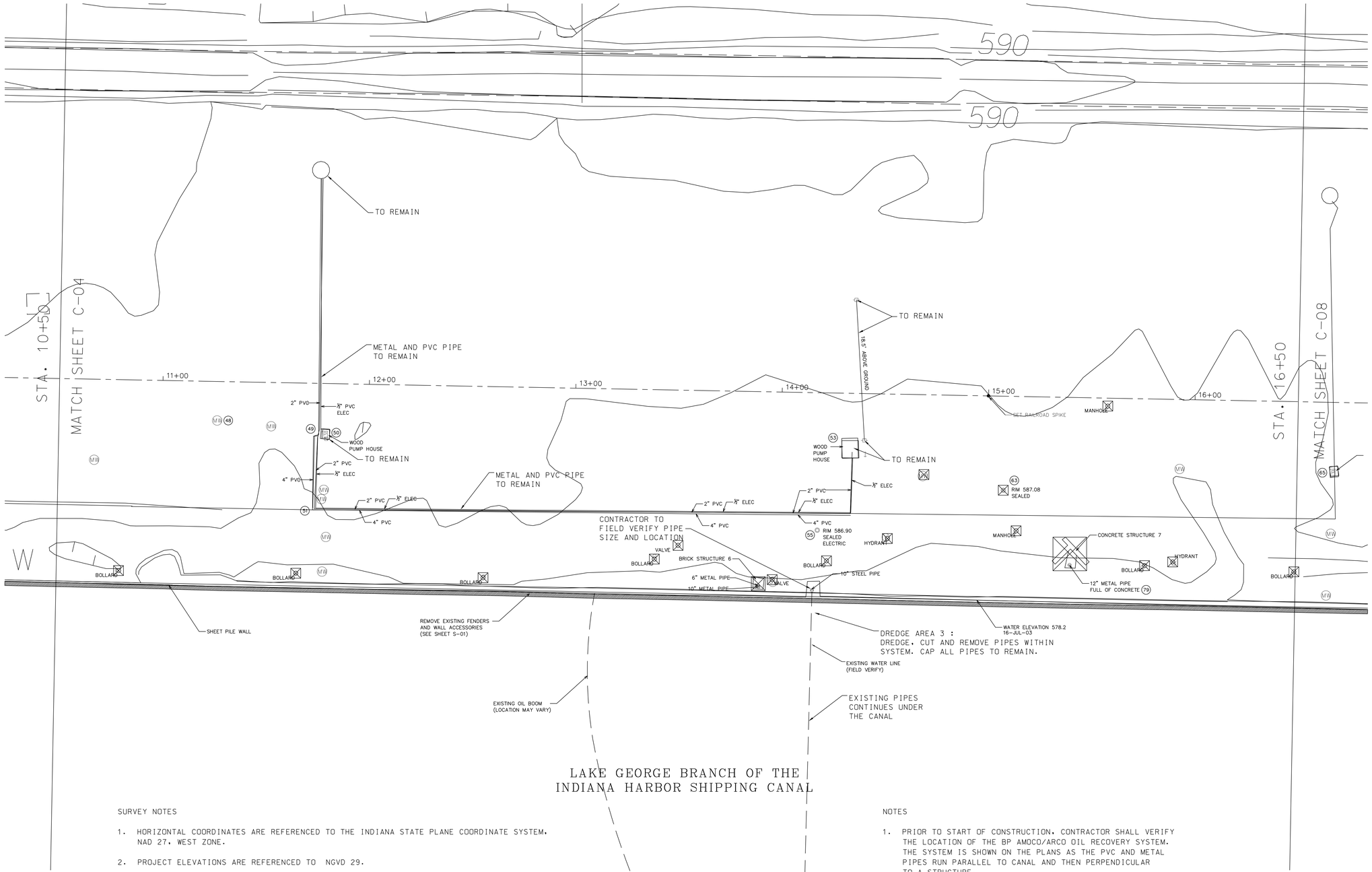
DATE

SHEET REFERENCE NUMBER:

C-05

SHEET 9 OF 21

PLOT DATE: $DATE$
FILENAME: C-05.DGN



SURVEY NOTES

1. HORIZONTAL COORDINATES ARE REFERENCED TO THE INDIANA STATE PLANE COORDINATE SYSTEM, NAD 27, WEST ZONE.
2. PROJECT ELEVATIONS ARE REFERENCED TO NGVD 29.
3. THE PROJECT AREA WAS NOT ABSTRACTED FOR EASEMENTS, OWNERSHIP, OR RIGHT OF WAY RECORD.
4. THE LOCATIONS OF UTILTIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.
5. THE INFORMATION SHOWN HEREON REPRENSENTS THE RESULTS OF A SURVEY PERFORMED ON THE GROUND IN JULY, 2003 BY BOLLINGER, LACH & ASSOCIATES, INC.
6. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29. THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM. DATE OF PHOTOGRAPHY: 10-21-94 AERO-METRIC ENGINEERING PROJECT NO. 1940943 NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

NOTES

1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY THE LOCATION OF THE BP AMOCO/ARCO OIL RECOVERY SYSTEM. THE SYSTEM IS SHOWN ON THE PLANS AS THE PVC AND METAL PIPES RUN PARALLEL TO CANAL AND THEN PERPENDICULAR TO A STRUCTURE.
2. IDEM WILL MOVE ANY OIL BOOMS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL CONTACT RYAN GROVES FROM IDEM AT (317) 233-2406) TO MOVE THE OIL BOOM PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL PROTECT THE OIL BOOMS DURING CONSTRUCTION AND IS NOT ALLOWED TO MOVE ANY OIL BOOMS UNLESS AUTHORIZED BY IDEM..

20 10 0 20 40
1 INCH = 20 FEET

"BEFORE DEMOLITION/ REMOVAL WORK FOR INFORMATION ONLY"

US Army Corps of Engineers Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 29 SEPT 2004
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SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC. CINCINNATI, OHIO 513-825-7500

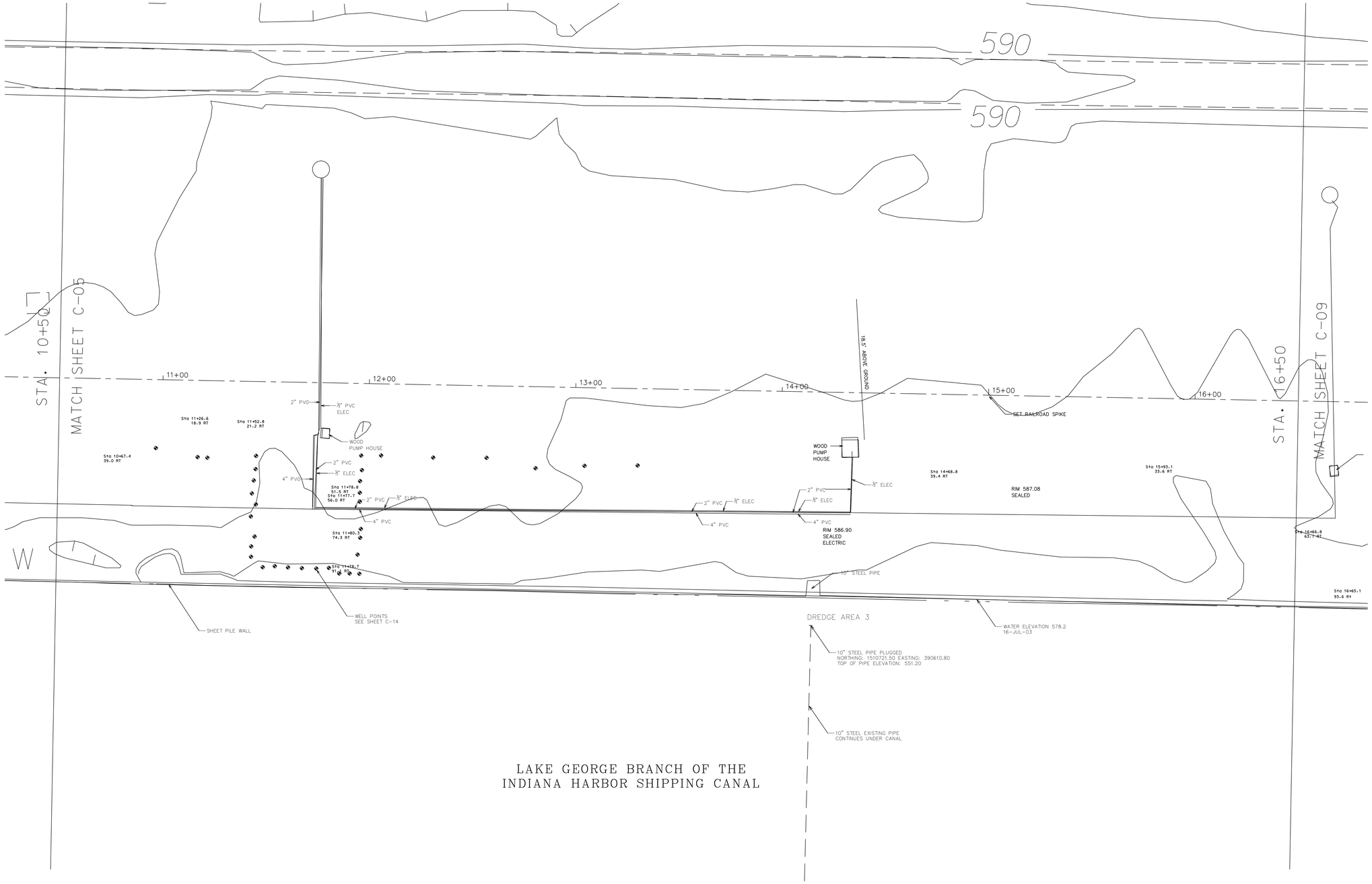
INDIANA HARBOR CANAL CONFINED DISPOSAL FACILITY OBSTRUCTION REMOVAL AND SITE DEMOLITION

EXISTING CONDITION SURVEY STA. 10+50 TO 16+50

SHEET REFERENCE NUMBER: C-06

SHEET 10 OF 21

PLOT DATE: $DATE$
FILENAME: C-06.DGN



US Army Corps of Engineers
Chicago District

SYMBOL	DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN	DATE: 28 SEPT 2004	
DRAWN BY: MVN	SCALE: AS SHOWN	
CHECKED BY: JT	CONTRACT NUMBER: W912P6-04-C-0006	
SUBMITTED BY:		DATE:

U.S. ARMY ENGINEER DISTRICT
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ENVIRONMENTAL QUALITY MANAGEMENT, INC.
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CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
OBSTRUCTION REMOVAL AND
DEMOLITION AS BUILT
STA. 10+50 TO 16+50

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

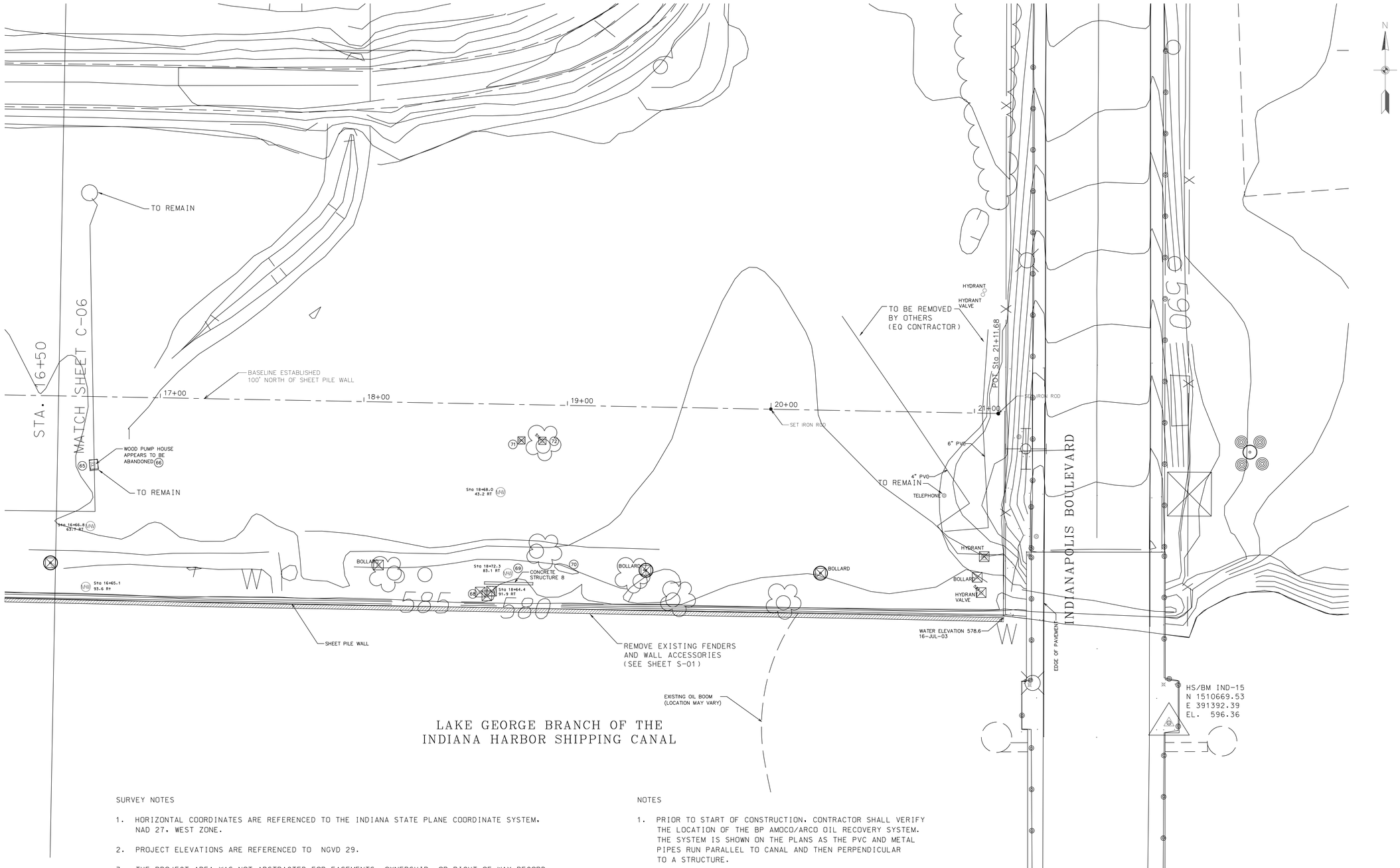
DATE

SHEET REFERENCE NUMBER:

C-07

SHEET 11 OF 21

PLOT DATE: $DATE$
FILENAME: C-07.DGN



SURVEY NOTES

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NOTES

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"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US Army Corps
of Engineers
Chicago District

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DESIGNED BY: MVN
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CONTRACT NUMBER: W912P6-04-C-0006
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CHICAGO, ILLINOIS

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CINCINNATI, OHIO
513-825-7500

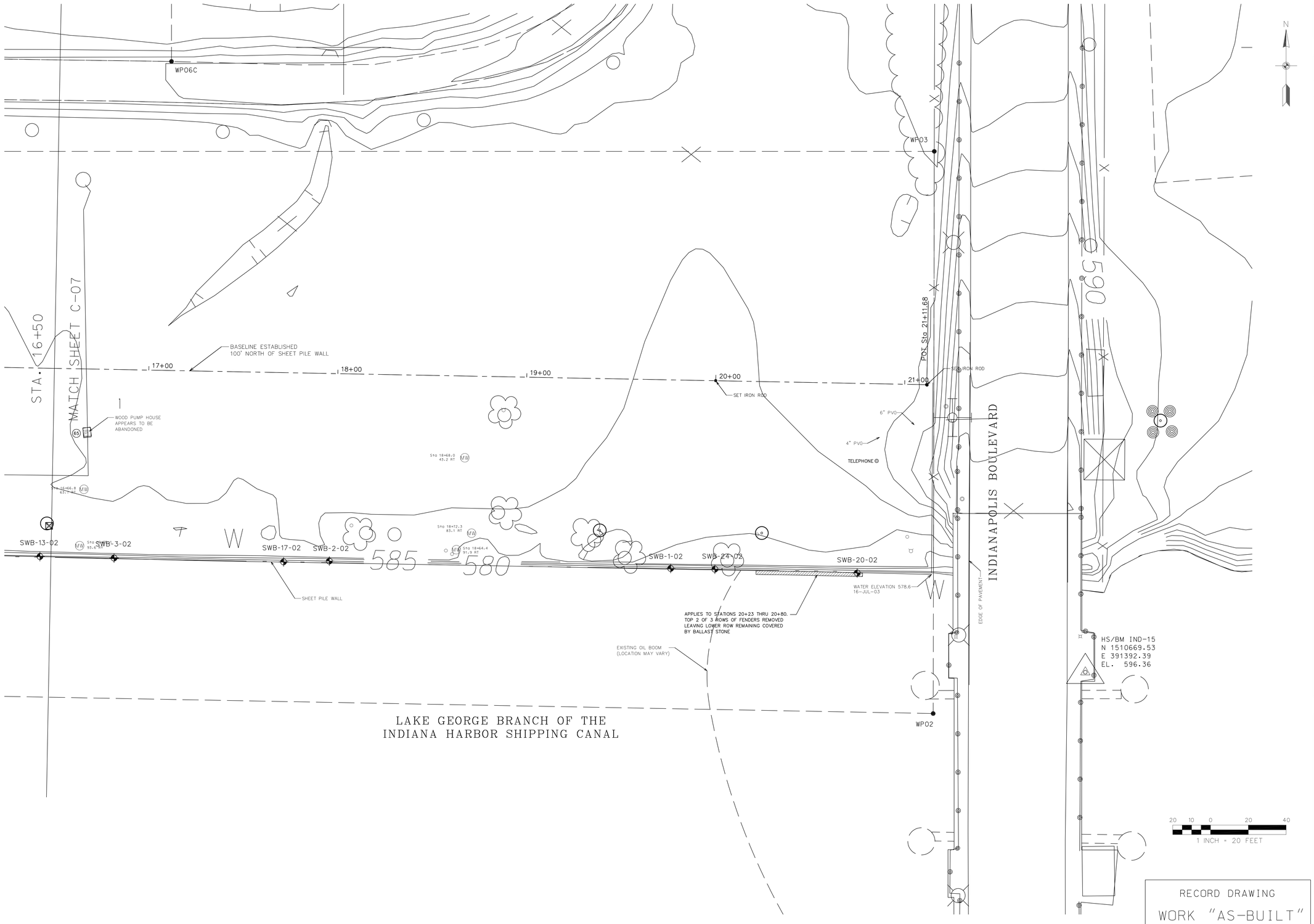
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 16+50 TO 21+00

SHEET
REFERENCE
NUMBER:
C-08

SHEET 12 OF 21

PLOT DATE: $DATE$
FILENAME: C-08.DGN



US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

DESIGNED BY: MVN	DATE: 28 SEPT 2004	
DRAWN BY: MVN	SCALE: AS SHOWN	
CHECKED BY: JT	CONTRCAT NUMBER: W912P6-04-C-0006	
SUBMITTED BY:		DATE:

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
OBSTRUCTION REMOVAL AND
DEMOLITION AS BUILT
STA. 16+50 TO 21+00

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

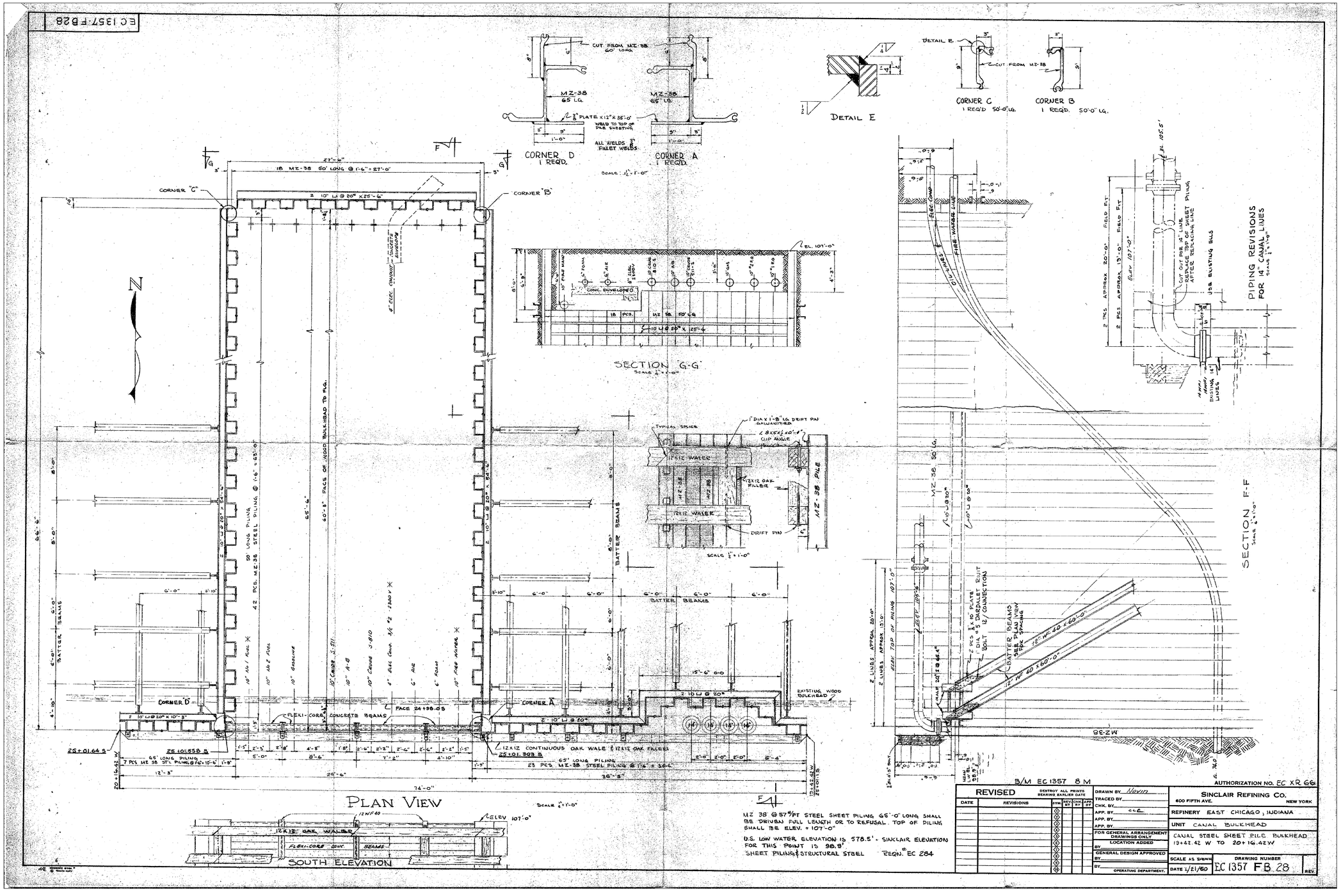
DATE

SHEET
REFERENCE
NUMBER:

C-09

SHEET 13 OF 21

PLOT DATE: $DATE$
FILENAME: C-09.DGN



NOTE:

1. THIS DRAWING IS FOR REFERENCE ONLY. THE INFORMATION SHOWN MAY OR MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD THAT THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATION OR CONCLUSION DRAWN THEREFROM BY THE CONTRACTOR.

2. PIPES WITH THE SYMBOL ✕ WERE NOT SHOWN ON THE EPA REPORT DURING EPA'S REMOVAL OF 50 LF OF PIPES AS SHOW ON SHEET C-03.

"BEFORE DEMOLITION/ REMOVAL WORK FOR INFORMATION ONLY"

US Army Corps of Engineers
Chicago District

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CORPS OF ENGINEERS
CHICAGO, ILLINOIS

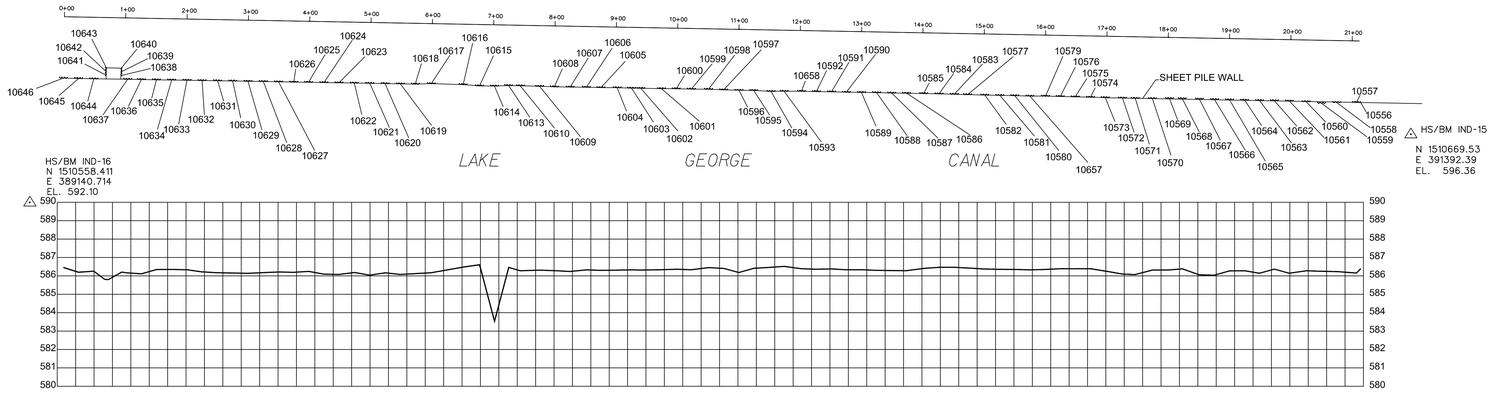
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CANAL STEEL SHEETPILE BULKHEAD

SHEET REFERENCE NUMBER:
C-10
SHEET 14 OF 21

PLOT DATE: $DATE$
FILENAME: C-10.DGN



Indiana Harbor Canal: Sheet Pile Wall Location

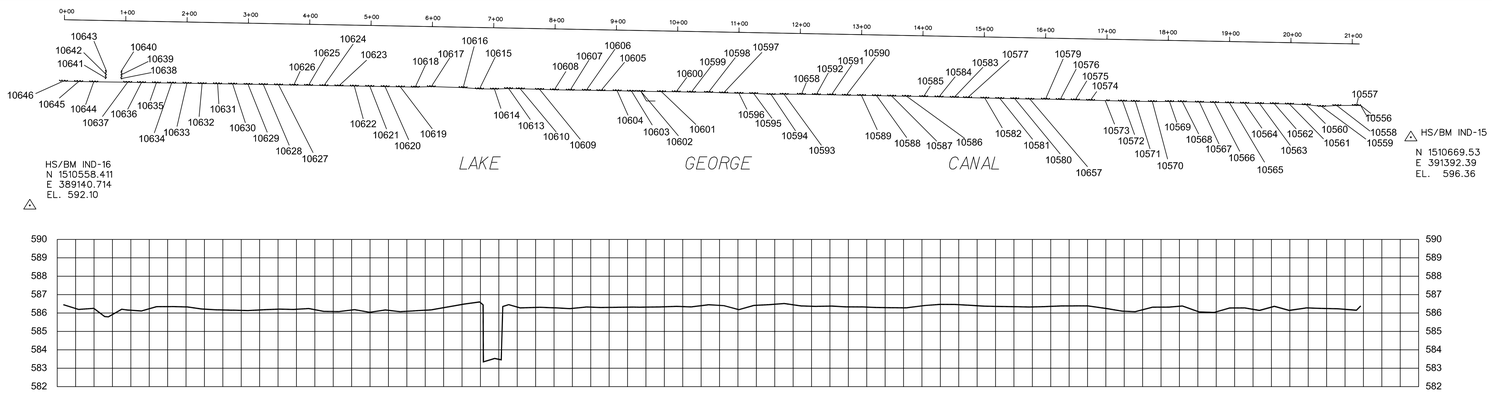
Date of Survey 08/01/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.349	391310.575	586.390
21+8.7	10557	1510721.391	391303.695	586.150
20+76.6	10558	1510721.232	391271.596	586.230
20+51.9	10559	1510719.905	391246.850	586.250
20+26.9	10560	1510722.593	391221.889	586.280
19+99.2	10561	1510723.727	391194.228	586.140
19+74.7	10562	1510724.331	391169.730	586.370
19+50.6	10563	1510724.594	391145.636	586.140
19+26.3	10564	1510725.159	391121.337	586.280
19+1.7	10565	1510725.717	391096.665	586.270
18+77.1	10566	1510726.211	391072.156	586.040
18+52.6	10567	1510726.904	391047.607	586.060
18+25.4	10568	1510727.571	391019.723	586.380
18+3.8	10569	1510727.818	390998.865	586.320
17+76.0	10570	1510727.766	390971.010	586.320
17+48.1	10571	1510728.083	390943.094	586.070
17+27.2	10572	1510728.598	390922.240	586.100
16+99.1	10573	1510729.264	390894.168	586.260
16+75.0	10574	1510729.890	390870.092	586.390
16+50.2	10575	1510730.523	390845.205	586.390
16+25.7	10576	1510731.135	390820.714	586.390
16+1.6	10579	1510731.718	390796.713	586.350
15+76.2	10657	1510731.800	390771.303	586.330
15+51.9	10580	1510732.469	390746.588	586.350
15+27.1	10581	1510732.880	390722.199	586.360
15+2.7	10582	1510733.486	390697.800	586.370
14+74.6	10577	1510734.155	390669.702	586.430
14+52.9	10583	1510734.768	390648.017	586.470
14+28.1	10584	1510735.369	390623.181	586.470
14+3.0	10585	1510735.892	390598.110	586.400
13+75.1	10586	1510736.422	390570.227	586.280
13+50.8	10587	1510736.793	390545.895	586.290
13+26.2	10588	1510737.342	390521.343	586.300

Sta. Number	Point Number	Northing	Easting	Elev. *
13+1.5	10589	1510737.756	390496.612	586.340
12+76.8	10590	1510738.072	390471.960	586.330
12+52.7	10591	1510738.726	390447.809	586.380
12+28.0	10592	1510739.128	390423.108	586.360
12+3.6	10658	1510739.588	390398.760	586.390
11+75.3	10593	1510739.679	390370.442	586.520
11+54.2	10594	1510739.397	390349.296	586.470
11+25.8	10595	1510740.921	390320.962	586.410
11+1.7	10596	1510741.257	390296.879	586.190
10+76.8	10597	1510741.968	390271.993	586.400
10+52.2	10598	1510742.846	390247.346	586.450
10+24.2	10599	1510743.154	390219.336	586.340
9+99.5	10600	1510743.746	390194.645	586.360
9+75.2	10601	1510743.931	390170.393	586.340
9+41.7	10602	1510744.499	390136.936	586.320
9+26.5	10603	1510744.700	390121.703	586.330
9+3.1	10604	1510745.392	390098.303	586.310
8+76.7	10605	1510745.596	390071.867	586.300
8+52.9	10606	1510746.190	390048.092	586.330
8+26.5	10607	1510746.437	390021.744	586.240
8+0.8	10608	1510746.840	389996.016	586.290
7+76.5	10609	1510747.703	389971.768	586.310
7+45.1	10610	1510748.622	389940.341	586.280
7+26.1	10613	1510748.967	389921.376	586.460
7+3.1	10614	1510748.135	389898.289	583.530
6+78.6	10615	1510748.430	389873.866	586.610
6+52.0	10616	1510750.505	389847.205	586.480
6+00	10617	1510752.009	389795.280	586.170
5+73.9	10618	1510751.320	389769.176	586.120
5+79.4	10619	1510751.769	389744.688	586.080
5+24.7	10620	1510752.162	389719.974	586.170
4+99.8	10621	1510752.613	389695.042	586.040
4+74.5	10622	1510753.059	389669.810	586.190

Sta. Number	Point Number	Northing	Easting	Elev. *
4+49.6	10623	1510753.420	389644.823	586.080
4+24.9	10624	1510753.766	389620.186	586.090
3+99.9	10625	1510754.266	389595.099	586.250
3+75.9	10626	1510754.548	389571.178	586.190
3+51.0	10627	1510755.056	389546.320	586.210
3+26.1	10628	1510755.510	389521.370	586.180
3+1.2	10629	1510755.918	389496.470	586.140
2+76.1	10630	1510756.396	389471.434	586.160
2+51.6	10631	1510756.751	389446.882	586.170
2+26.2	10632	1510757.065	389421.544	586.220
2+1.7	10633	1510757.663	389397.016	586.340
1+76.6	10634	1510758.000	389371.868	586.350
1+51.8	10635	1510758.323	389347.115	586.350
1+27.5	10636	1510758.759	389322.840	586.110
1+5.0	10637	1510759.216	389300.281	586.160
0+93.9	10638	1510765.123	389289.293	586.210
0+93.9	10639	1510771.233	389289.523	586.180
0+93.9	10640	1510777.257	389289.755	586.290
0+69.7	10641	1510765.675	389265.167	585.750
0+69.7	10642	1510771.690	389265.265	586.070
0+69.7	10643	1510777.756	389265.528	585.900
0+49.6	10644	1510759.858	389244.940	586.260
0+25.0	10645	1510760.424	389220.359	586.200
0+0.1	10646	1510761.047	389195.400	586.450

* ELEVATION IS TOP OF SHEET PILE



Indiana Harbor Canal: Sheet Pile Wall Location

Date of Survey 08/16/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.33	391310.59	586.40
21+8.7	10557	1510721.35	391303.70	586.16
20+76.6	10558	1510721.21	391271.59	586.24
20+51.9	10559	1510719.90	391246.72	586.27
20+26.9	10560	1510722.58	391221.87	586.28
19+99.2	10561	1510723.74	391194.19	586.15
19+74.7	10562	1510724.34	391169.70	586.37
19+50.6	10563	1510724.60	391145.61	586.14
19+26.3	10564	1510725.17	391121.29	586.28
19+1.7	10565	1510725.73	391096.66	586.27
18+77.1	10566	1510726.23	391072.15	586.03
18+52.6	10567	1510726.91	391047.56	586.05
18+25.4	10568	1510727.59	391019.70	586.37
18+3.8	10569	1510727.85	390998.84	586.30
17+76.0	10570	1510727.78	390970.97	586.30
17+48.1	10571	1510728.10	390943.07	586.09
17+27.2	10572	1510728.62	390922.18	586.09
16+99.1	10573	1510729.29	390894.12	586.26
16+75.0	10574	1510729.95	390870.04	586.38
16+50.2	10575	1510730.57	390845.16	586.39
16+25.7	10576	1510731.19	390820.65	586.35
16+1.6	10579	1510731.69	390796.75	586.31
15+76.2	10657	1510731.83	390771.37	586.27
15+51.9	10580	1510732.43	390746.61	586.31
15+27.1	10581	1510732.85	390722.23	586.33
15+2.7	10582	1510733.46	390697.80	586.34
14+74.6	10577	1510734.22	390669.64	586.40
14+52.9	10583	1510734.75	390648.03	586.44
14+28.1	10584	1510735.34	390623.18	586.43
14+3.0	10585	1510735.87	390598.12	586.37
13+75.1	10586	1510736.40	390570.20	586.25

Sta. Number	Point Number	Northing	Easting	Elev. *
13+50.8	10587	1510736.75	390545.87	586.26
13+26.2	10588	1510737.32	390521.31	586.26
13+1.5	10589	1510737.76	390496.58	586.31
12+76.8	10590	1510738.06	390471.93	586.30
12+52.7	10591	1510738.72	390447.80	586.34
12+28.0	10592	1510739.14	390423.09	586.33
12+3.6	10658	1510739.56	390398.75	586.33
11+75.3	10593	1510739.59	390370.40	586.49
11+54.2	10594	1510739.30	390349.25	586.42
11+25.8	10595	1510740.94	390320.94	586.38
11+1.7	10596	1510741.25	390296.80	586.15
10+76.8	10597	1510741.98	390271.93	586.36
10+52.2	10598	1510742.83	390247.31	586.40
10+24.2	10599	1510743.16	390219.33	586.29
9+99.5	10600	1510743.77	390194.60	586.31
9+75.2	10601	1510743.95	390170.31	586.28
9+41.7	10602	1510744.50	390136.89	586.27
9+26.5	10603	1510744.70	390121.63	586.27
9+3.1	10604	1510745.40	390098.28	586.29
8+76.7	10605	1510745.59	390071.83	586.25
8+52.9	10606	1510746.17	390048.05	586.27
8+26.5	10607	1510746.45	390021.74	586.19
8+0.8	10608	1510746.86	389995.96	586.22
7+76.5	10609	1510747.69	389971.71	586.26
7+45.1	10610	1510748.58	389940.31	586.22
7+26.1	10613	1510748.97	389921.37	586.35
7+3.1	10614	1510748.12	389880.31	583.46
6+78.6	10615	1510748.45	389873.90	586.52
6+52.0	10616	1510750.53	389847.20	586.40
6+00	10617	1510752.07	389795.31	586.14
5+73.9	10618	1510751.33	389769.22	586.05

Sta. Number	Point Number	Northing	Easting	Elev. *
5+79.4	10619	1510751.77	389744.73	586.03
5+24.7	10620	1510752.19	389720.00	586.10
4+99.8	10621	1510752.61	389695.08	585.97
4+74.5	10622	1510753.08	389669.83	586.12
4+49.6	10623	1510753.44	389644.85	586.03
4+24.9	10624	1510753.77	389620.25	586.04
3+99.9	10625	1510754.25	389595.13	586.20
3+75.9	10626	1510754.58	389571.19	586.16
3+51.0	10627	1510755.07	389546.35	586.18
3+26.1	10628	1510755.50	389521.39	586.14
3+1.2	10629	1510755.96	389496.47	586.10
2+76.1	10630	1510756.38	389471.48	586.13
2+51.6	10631	1510756.74	389446.90	586.14
2+26.2	10632	1510757.06	389421.53	586.20
2+1.7	10633	1510757.66	389397.02	586.31
1+76.6	10634	1510757.99	389371.87	586.33
1+51.8	10635	1510758.32	389347.11	586.32
1+27.5	10636	1510758.76	389322.83	586.09
1+5.0	10637	1510759.20	389300.26	586.13
0+93.9	10638	1510765.10	389289.28	586.18
0+93.9	10639	1510771.21	389289.46	586.17
0+93.9	10640	1510777.23	389289.70	586.27
0+69.7	10641	1510765.67	389265.13	585.70
0+69.7	10642	1510771.68	389265.24	586.02
0+69.7	10643	1510777.75	389265.54	585.85
0+49.6	10644	1510759.86	389244.91	586.19
0+25.0	10645	1510760.44	389220.33	586.15
0+0.1	10646	1510761.09	389195.46	586.33

* ELEVATION IS TOP OF SHEET PILE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US Army Corps of Engineers
Chicago District

SYMBOL	DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED
	AMENDMENT						

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

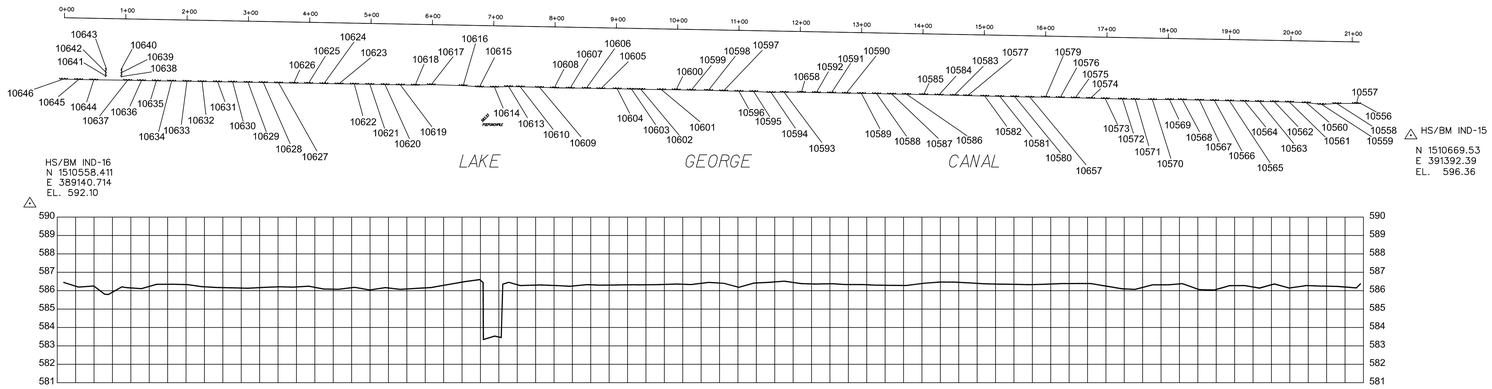
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
STEEL SHEET PILE
WALL SURVEY
08/01/05 AND 08/16/05

SHEET REFERENCE NUMBER:
C-11
SHEET 15 OF 21

PLOT DATE: $DATE$
FILENAME: C-11.DGN



Indiana Harbor Canal: Sheet Pile Wall Location

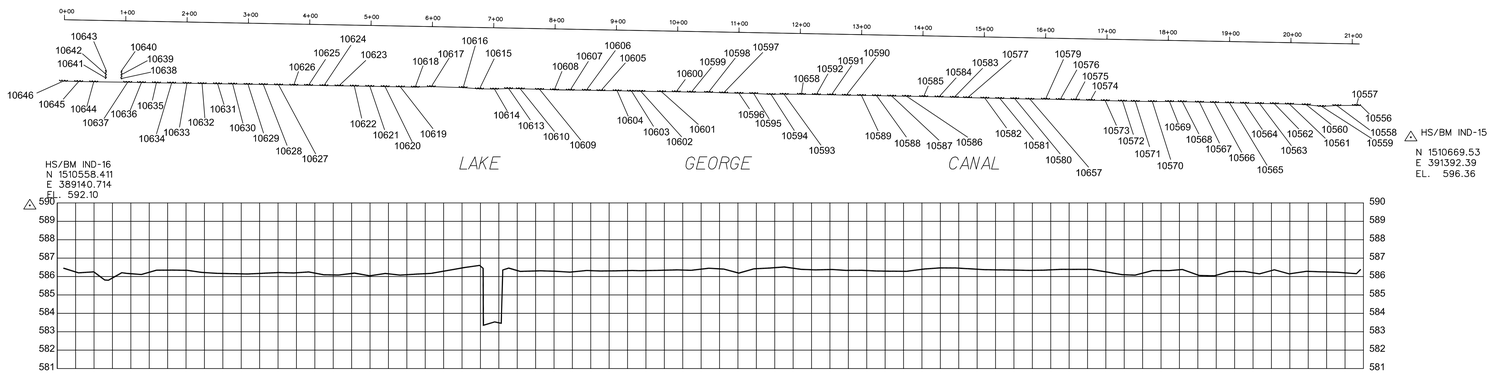
Date of Survey 08/29/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.36	391310.57	586.40
21+8.7	10557	1510721.28	391303.72	586.15
20+76.6	10558	1510721.22	391271.59	586.24
20+51.9	10559	1510719.91	391246.72	586.27
20+26.9	10560	1510722.61	391221.89	586.28
19+99.2	10561	1510723.74	391194.21	586.15
19+74.7	10562	1510724.35	391169.69	586.37
19+50.6	10563	1510724.61	391145.62	586.13
19+26.3	10564	1510725.16	391121.29	586.27
19+1.7	10565	1510725.73	391096.66	586.27
18+77.1	10566	1510726.25	391072.14	586.03
18+52.6	10567	1510726.93	391047.62	586.05
18+25.4	10568	1510727.59	391019.71	586.37
18+3.8	10569	1510727.84	390998.83	586.29
17+76.0	10570	1510727.80	390970.95	586.29
17+48.1	10571	1510728.08	390943.04	586.08
17+27.2	10572	1510728.59	390922.17	586.08
16+99.1	10573	1510729.29	390894.14	586.24
16+75.0	10574	1510729.94	390870.04	586.35
16+50.2	10575	1510730.54	390845.18	586.35
16+25.7	10576	1510731.18	390820.64	586.32
16+1.6	10579	1510731.69	390796.71	586.33
15+76.2	10657	1510731.81	390771.34	586.27
15+51.9	10580	1510732.43	390746.61	586.34
15+27.1	10581	1510732.83	390722.20	586.34
15+2.7	10582	1510733.43	390697.76	586.34
14+74.6	10577	1510734.22	390669.61	586.36
14+52.9	10583	1510734.74	390648.01	586.46
14+28.1	10584	1510735.31	390623.14	586.45
14+3.0	10585	1510735.86	390598.08	586.37
13+75.1	10586	1510736.39	390570.21	586.26

Sta. Number	Point Number	Northing	Easting	Elev. *
13+50.8	10587	1510736.77	390545.86	586.28
13+26.2	10588	1510737.34	390521.30	586.28
13+1.5	10589	1510737.78	390496.56	586.33
12+76.8	10590	1510738.07	390471.89	586.32
12+52.7	10591	1510738.72	390447.76	586.36
12+28.0	10592	1510739.14	390423.08	586.35
12+3.6	10658	1510739.58	390398.74	586.34
11+75.3	10593	1510739.60	390370.38	586.49
11+54.2	10594	1510739.29	390349.24	586.44
11+25.8	10595	1510740.95	390320.90	586.38
11+1.7	10596	1510741.27	390296.78	586.16
10+76.8	10597	1510742.03	390271.89	586.37
10+52.2	10598	1510742.87	390247.25	586.41
10+24.2	10599	1510743.19	390219.29	586.30
9+99.5	10600	1510743.82	390194.55	586.32
9+75.2	10601	1510743.98	390170.27	586.30
9+41.7	10602	1510744.57	390136.83	586.28
9+26.5	10603	1510744.76	390121.61	586.26
9+3.1	10604	1510745.45	390098.24	586.30
8+76.7	10605	1510745.68	390071.77	586.26
8+52.9	10606	1510746.30	390047.98	586.28
8+26.5	10607	1510746.55	390021.66	586.19
8+0.8	10608	1510747.00	389995.92	586.22
7+76.5	10609	1510747.79	389971.70	586.27
7+45.1	10610	1510748.68	389940.24	586.20
7+26.1	10613	1510748.92	389921.40	586.36
7+3.1	10614	1510747.95	389898.30	583.43
6+78.6	10615	1510748.30	389873.92	586.51
6+52.0	10616	1510750.32	389847.25	586.40
6+00	10617	1510751.94	389795.26	586.11
5+73.9	10618	1510751.21	389769.17	586.04

Sta. Number	Point Number	Northing	Easting	Elev. *
5+79.4	10619	1510751.67	389744.68	586.01
5+24.7	10620	1510752.05	389719.98	586.11
4+99.8	10621	1510752.50	389695.05	585.97
4+74.5	10622	1510753.04	389669.82	586.14
4+49.6	10623	1510753.35	389644.79	586.02
4+24.9	10624	1510753.74	389620.15	586.05
3+99.9	10625	1510754.25	389595.10	586.20
3+75.9	10626	1510754.54	389571.19	586.15
3+51.0	10627	1510755.03	389546.32	586.18
3+26.1	10628	1510755.45	389521.35	586.15
3+1.2	10629	1510755.92	389496.44	586.10
2+76.1	10630	1510756.36	389471.44	586.13
2+51.6	10631	1510756.74	389446.88	586.14
2+26.2	10632	1510757.05	389421.53	586.20
2+1.7	10633	1510757.66	389396.98	586.31
1+76.6	10634	1510758.02	389371.87	586.33
1+51.8	10635	1510758.35	389347.07	586.33
1+27.5	10636	1510758.82	389322.80	586.09
1+5.0	10637	1510759.21	389300.20	586.14
0+93.9	10638	1510765.12	389289.26	586.18
0+93.9	10639	1510771.22	389289.45	586.16
0+93.9	10640			
0+69.7	10641	1510765.68	389265.14	585.71
0+69.7	10642	1510771.68	389265.23	586.04
0+69.7	10643	1510777.75	389265.54	585.87
0+49.6	10644	1510759.89	389244.92	586.21
0+25.0	10645	1510760.45	389220.33	586.15
0+0.1	10646	1510761.13	389195.49	586.35

* ELEVATION IS TOP OF SHEET PILE



Indiana Harbor Canal: Sheet Pile Wall Location

Date of Survey 09/14/2005

Point Number	Northing	Easting	Elev. *
10556	1510721.34	391310.57	586.39
10557	1510721.36	391303.70	586.15
10558	1510721.21	391271.56	586.24
10559	1510719.89	391246.71	586.25
10560	1510722.59	391221.89	586.27
10561	1510723.75	391194.21	586.13
10562	1510724.34	391169.70	586.36
10563	1510724.62	391145.62	586.12
10564	1510725.18	391121.31	586.26
10565	1510725.74	391096.66	586.24
10566	1510726.24	391072.17	586.00
10567	1510726.92	391047.60	586.03
10568	1510727.59	391019.70	586.35
10569	1510727.85	390998.84	586.26
10570	1510727.81	390970.95	586.27
10571	1510728.12	390943.10	586.06
10572	1510728.62	390922.19	586.06
10573	1510729.29	390894.14	586.22
10574	1510729.96	390870.08	586.34
10575	1510730.59	390845.09	586.35
10576	1510731.23	390820.66	586.33
10579	1510731.70	390796.76	586.35
10657	1510731.84	390771.37	586.29
10580	1510732.44	390746.59	586.34
10581	1510732.86	390722.22	586.35
10582	1510733.47	390697.79	586.36
10577	1510734.26	390669.63	586.36
10583	1510734.78	390648.02	586.48
10584	1510735.34	390623.21	586.45
10585	1510735.88	390598.11	586.39
10586	1510736.41	390570.23	586.28
10587	1510736.78	390545.88	586.28
10588	1510737.13	390521.31	586.29

Point Number	Northing	Easting	Elev. *
10589	1510737.77	390496.59	586.33
10590	1510738.07	390471.93	586.32
10591	1510738.75	390447.81	586.38
10592	1510739.14	390423.10	586.37
10658	1510739.57	390398.78	586.36
10593	1510739.60	390370.44	586.50
10594	1510739.28	390349.27	586.44
10595	1510740.93	390320.97	586.41
10596	1510741.25	390296.85	586.17
10597	1510741.95	390271.95	586.38
10598	1510742.82	390247.31	586.43
10599	1510743.15	390219.39	586.33
10600	1510743.73	390194.63	586.35
10601	1510743.91	390170.34	586.32
10602	1510744.48	390136.88	586.31
10603	1510744.68	390121.65	586.29
10604	1510745.38	390098.29	586.30
10605	1510745.58	390071.81	586.26
10606	1510746.16	390048.07	586.29
10607	1510746.44	390021.72	586.22
10608	1510746.82	389995.92	586.28
10609	1510747.66	389971.73	586.30
10610	1510748.57	389940.32	586.26
10613	1510748.94	389921.47	586.39
10614	1510748.12	389898.33	583.47
10615	1510748.47	389873.91	586.54
10616	1510750.50	389847.26	586.43
10617	1510752.06	389795.30	586.15
10618	1510751.35	389769.19	586.10
10619	1510751.77	389744.70	586.04
10620	1510752.18	389719.99	586.13
10621	1510752.65	389695.08	586.00
10622	1510753.07	389669.82	586.17

Point Number	Northing	Easting	Elev.*
10623	1510753.46	389644.82	586.05
10624	1510753.80	389620.21	586.06
10625	1510754.25	389595.14	586.21
10626	1510754.59	389571.22	586.19
10627	1510755.06	389546.35	586.20
10628	1510755.50	389521.39	586.15
10629	1510755.93	389496.48	586.12
10630	1510756.36	389471.48	586.12
10631	1510756.77	389446.90	586.15
10632	1510757.05	389421.57	586.20
10633	1510757.64	389397.04	586.32
10634	1510757.98	389371.86	586.37
10635	1510758.29	389347.12	586.34
10636	1510758.76	389322.80	586.09
10637	1510759.20	389300.27	586.15
10638	1510765.12	389289.27	586.20
10639	1510771.21	389289.44	586.18
10640	1510777.21	389289.69	586.27
10641	1510765.68	389265.14	585.73
10642	1510771.69	389265.24	586.06
10643	1510777.76	389265.55	585.88
10644	1510759.85	389244.90	586.23
10645	1510760.44	389220.33	586.18
10646	1510761.14	389195.45	586.37

* ELEVATION IS TOP OF SHEET PILE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
STEEL SHEET PILE
WALL SURVEY
8/29/05 AND 9/14/05

SHEET REFERENCE NUMBER:
C-12
SHEET 16 OF 21

PLOT DATE: $DATE$
FILENAME: C-12.DGN

Date of Survey 08/01/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.349	391310.575	586.390
21+8.7	10557	1510721.391	391303.695	586.150
20+76.6	10558	1510721.232	391271.596	586.230
20+51.9	10559	1510719.905	391246.850	586.250
20+26.9	10560	1510722.593	391221.889	586.280
19+99.2	10561	1510723.727	391194.228	586.140
19+74.7	10562	1510724.331	391169.730	586.370
19+50.6	10563	1510724.594	391145.636	586.140
19+26.3	10564	1510725.159	391121.337	586.280
19+1.7	10565	1510725.717	391096.665	586.270
18+77.1	10566	1510726.211	391072.156	586.040
18+52.6	10567	1510726.904	391047.607	586.060
18+25.4	10568	1510727.571	391019.723	586.380
18+3.8	10569	1510727.818	390998.865	586.320
17+76.0	10570	1510727.766	390971.010	586.320
17+48.1	10571	1510728.083	390943.094	586.070
17+27.2	10572	1510728.598	390922.240	586.100
16+99.1	10573	1510729.264	390894.168	586.260
16+75.0	10574	1510729.890	390870.092	586.390
16+50.2	10575	1510730.523	390845.205	586.390
16+25.7	10576	1510731.135	390820.714	586.390
16+1.6	10579	1510731.718	390796.713	586.350
15+76.2	10657	1510731.800	390771.303	586.330
15+51.9	10580	1510732.469	390746.588	586.350
15+27.1	10581	1510732.880	390722.199	586.360
15+2.7	10582	1510733.486	390697.800	586.370
14+74.6	10577	1510734.155	390669.702	586.430
14+52.9	10583	1510734.768	390648.017	586.470
14+28.1	10584	1510735.369	390623.181	586.470
14+3.0	10585	1510735.892	390598.110	586.400
13+75.1	10586	1510736.422	390570.227	586.280
13+50.8	10587	1510736.793	390545.895	586.290
13+26.2	10588	1510737.342	390521.343	586.300
13+1.5	10589	1510737.756	390496.612	586.340
12+76.8	10590	1510738.072	390471.960	586.330
12+52.7	10591	1510738.726	390447.809	586.380
12+28.0	10592	1510739.128	390423.108	586.360
12+3.6	10658	1510739.588	390398.760	586.390
11+75.3	10593	1510739.679	390370.442	586.520
11+54.2	10594	1510739.397	390349.296	586.470
11+25.8	10595	1510740.921	390320.962	586.410
11+1.7	10596	1510741.257	390296.879	586.190
10+76.8	10597	1510741.968	390271.993	586.400
10+52.2	10598	1510742.846	390247.346	586.450
10+24.2	10599	1510743.154	390219.336	586.340
9+99.5	10600	1510743.746	390194.645	586.360
9+75.2	10601	1510743.931	390170.393	586.340
9+41.7	10602	1510744.499	390136.936	586.320
9+26.5	10603	1510744.700	390121.703	586.330
9+3.1	10604	1510745.392	390098.303	586.310
8+76.7	10605	1510745.596	390071.867	586.300
8+52.9	10606	1510746.190	390048.092	586.330
8+26.5	10607	1510746.437	390021.744	586.240
8+0.8	10608	1510746.840	389996.016	586.290
7+76.5	10609	1510747.703	389971.768	586.310
7+45.1	10610	1510748.622	389940.341	586.280
7+26.1	10613	1510748.967	389921.376	586.460
7+3.1	10614	1510748.135	389898.289	583.530
6+78.6	10615	1510748.430	389873.866	586.610
6+52.0	10616	1510750.505	389847.205	586.480
6+00	10617	1510752.009	389795.280	586.170
5+73.9	10618	1510751.320	389769.176	586.120
5+79.4	10619	1510751.769	389744.688	586.080
5+24.7	10620	1510752.162	389719.974	586.170
4+99.8	10621	1510752.613	389695.042	586.040
4+74.5	10622	1510753.059	389669.810	586.190
4+49.6	10623	1510753.420	389644.823	586.080
4+24.9	10624	1510753.766	389620.186	586.090
3+99.9	10625	1510754.266	389595.099	586.250
3+75.9	10626	1510754.548	389571.178	586.190
3+51.0	10627	1510755.056	389546.320	586.210
3+26.1	10628	1510755.510	389521.370	586.180
3+1.2	10629	1510755.918	389496.470	586.140
2+76.1	10630	1510756.396	389471.434	586.160
2+51.6	10631	1510756.751	389446.882	586.170
2+26.2	10632	1510757.065	389421.544	586.220
2+1.7	10633	1510757.663	389397.016	586.340
1+76.6	10634	1510758.000	389371.868	586.350
1+51.8	10635	1510758.323	389347.115	586.350
1+27.5	10636	1510758.759	389322.840	586.110
1+5.0	10637	1510759.216	389300.281	586.160
0+93.9	10638	1510765.123	389289.293	586.210
0+93.9	10639	1510771.233	389289.523	586.180
0+93.9	10640	1510777.257	389289.755	586.290
0+69.7	10641	1510765.675	389265.167	585.750
0+69.7	10642	1510771.690	389265.265	586.070
0+69.7	10643	1510777.756	389265.528	585.900
0+49.6	10644	1510759.858	389244.940	586.260
0+25.0	10645	1510760.424	389220.359	586.200
0+0.1	10646	1510761.047	389195.400	586.450

Date of Survey 08/16/2005

Northing	Easting	Elev. *
1510721.33	391310.59	586.40
1510721.35	391303.70	586.16
1510721.21	391271.59	586.24
1510719.90	391246.72	586.27
1510722.58	391221.87	586.28
1510723.74	391194.19	586.15
1510724.34	391169.70	586.37
1510724.60	391145.61	586.14
1510725.17	391121.29	586.28
1510725.73	391096.66	586.27
1510726.23	391072.15	586.03
1510726.91	391047.56	586.05
1510727.59	391019.70	586.37
1510727.85	390998.84	586.30
1510727.78	390970.97	586.30
1510728.10	390943.07	586.09
1510728.62	390922.18	586.09
1510729.29	390894.12	586.26
1510729.95	390870.04	586.38
1510730.57	390845.16	586.39
1510731.19	390820.65	586.35
1510731.69	390796.75	586.31
1510731.83	390771.37	586.27
1510732.43	390746.61	586.31
1510732.85	390722.23	586.33
1510733.46	390697.80	586.34
1510734.22	390669.64	586.40
1510734.75	390648.03	586.44
1510735.34	390623.18	586.43
1510735.87	390598.12	586.37
1510736.40	390570.20	586.25
1510736.75	390545.87	586.26
1510737.32	390521.31	586.26
1510737.76	390496.58	586.31
1510738.06	390471.93	586.30
1510738.72	390447.80	586.34
1510739.14	390423.09	586.33
1510739.56	390398.75	586.33
1510739.59	390370.40	586.49
1510739.30	390349.25	586.42
1510740.94	390320.94	586.38
1510741.25	390296.80	586.15
1510741.98	390271.93	586.36
1510742.83	390247.31	586.40
1510743.16	390219.33	586.29
1510743.77	390194.60	586.31
1510743.95	390170.31	586.28
1510744.50	390136.89	586.27
1510744.70	390121.63	586.27
1510745.40	390098.28	586.29
1510745.59	390071.83	586.25
1510746.17	390048.05	586.27
1510746.45	390021.74	586.19
1510746.86	389995.96	586.22
1510747.69	389971.71	586.26
1510748.58	389940.31	586.22
1510748.97	389921.37	586.35
1510748.12	389880.31	583.46
1510748.45	389873.90	586.52
1510750.53	389847.20	586.40
1510752.07	389795.31	586.14
1510751.33	389769.22	586.05
1510751.77	389744.73	586.03
1510752.19	389720.00	586.10
1510752.61	389695.08	585.97
1510753.08	389669.83	586.12
1510753.44	389644.85	586.03
1510753.77	389620.25	586.04
1510754.25	389595.13	586.20
1510754.58	389571.19	586.16
1510755.07	389546.35	586.18
1510755.50	389521.39	586.14
1510755.96	389496.47	586.10
1510756.38	389471.48	586.13
1510756.74	389446.90	586.14
1510757.06	389421.53	586.20
1510757.66	389397.02	586.31
1510757.99	389371.87	586.33
1510758.32	389347.11	586.32
1510758.76	389322.83	586.09
1510759.20	389300.26	586.13
1510765.10	389289.28	586.18
1510771.21	389289.46	586.17
1510777.23	389289.70	586.27
1510765.67	389265.13	585.70
1510771.68	389265.24	586.02
1510777.75	389265.54	585.85
1510759.86	389244.91	586.19
1510760.44	389220.33	586.15
1510761.09	389195.46	586.33

Date of Survey 08/29/2005

Northing	Easting	Elev. *
1510721.36	391310.57	586.40
1510721.28	391303.72	586.15
1510721.22	391271.59	586.24
1510719.91	391246.72	586.27
1510722.61	391221.89	586.28
1510723.74	391194.21	586.15
1510724.35	391169.69	586.37
1510724.61	391145.62	586.13
1510725.16	391121.29	586.27
1510725.73	391096.66	586.27
1510726.25	391072.14	586.03
1510726.93	391047.62	586.05
1510727.59	391019.71	586.37
1510727.84	390998.83	586.29
1510727.80	390970.95	586.29
1510728.08	390943.04	586.08
1510728.59	390922.17	586.08
1510729.29	390894.14	586.24
1510729.94	390870.04	586.35
1510730.54	390845.18	586.35
1510731.18	390820.64	586.32
1510731.69	390796.71	586.33
1510731.81	390771.34	586.27
1510732.43	390746.61	586.34
1510732.83	390722.20	586.34
1510733.43	390697.76	586.34
1510734.22	390669.61	586.36
1510734.74	390648.01	586.46
1510735.31	390623.14	586.45
1510735.86	390598.08	586.37
1510736.39	390570.21	586.26
1510736.77	390545.86	586.28
1510737.34	390521.30	586.28
1510737.78	390496.56	586.33
1510738.07	390471.93	586.32
1510738.72	390447.76	586.36
1510739.14	390423.08	586.35
1510739.58	390398.74	586.34
1510739.60	390370.38	586.49
1510739.29	390349.24	586.44
1510740.95	390320.90	586.38
1510741.27	390296.78	586.16
1510742.03	390271.89	586.37
1510742.87	390247.25	586.41
1510743.19	390219.29	586.30
1510743.82	390194.55	586.32
1510743.98	390170.27	586.30
1510744.57	390136.83	586.28
1510744.76	390121.61	586.26
1510745.45	390098.24	586.30
1510745.68	390071.77	586.26
1510746.30	390047.98	586.28
1510746.55	390021.66	586.19
1510747.00	389995.92	586.22
1510747.79	389971.70	586.27
1510748.68	389940.24	586.20
1510748.92	389921.40	586.36
1510747.95	389898.30	583.43
1510748.30	389873.92	586.51
1510750.32	389847.25	586.40
1510751.94	389795.26	586.11
1510751.21	389769.17	586.04
1510751.67	389744.68	586.01
1510752.05	389719.98	586.11
1510752.50	389695.05	585.97
1510753.04	389669.82	586.14
1510753.35	389644.79	586.02
1510753.74	389620.15	586.05
1510754.25	389595.10	586.20
1510754.54	389571.19	586.15
1510755.03	389546.32	586.18
1510755.45	389521.35	586.15
1510755.92	389496.44	586.10
1510756.36	389471.48	586.13
1510756.74	389446.88	586.14
1510757.05	389421.53	586.20
1510757.66	389396.98	586.31
1510758.02	389371.87	586.33
1510758.35	389347.07	586.33
1510758.82	389322.80	586.09
1510759.21	389300.20	586.14
1510765.12	389289.26	586.18
1510771.22	389289.45	586.16
1510765.68	389265.14	585.71
1510771.68	389265.23	586.04
1510777.75	389265.54	585.87
1510759.89	389244.92	586.21
1510760.45	389220.33	586.15
1510761.13	389195.49	586.35

Date of Survey 09/14/2005

Northing	Easting	Elev. *
1510721.34	391310.57	586.39
1510721.36	391303.70	586.15
1510721.21	391271.56	586.24
1510719.89	391246.71	586.25
1510722.59	391221.89	586.27
1510723.75	391194.21	586.13
1510724.34	391169.70	586.36
1510724.62	391145.62	586.12
1510725.18	391121.31	586.26
1510725.74	391096.66	586.24
1510726.24	391072.17	586.00
1510726.92	391047.60	586.03
1510727.59	391019.70	586.35
1510727.85	390998.84	586.26
1510727.81	390970.95	586.27
1510728.12	390943.10	586.06
1510728.62	390922.19	586.06
1510729.29	390894.14	586.22
1510729.96	390870.08	586.34
1510730.59	390845.09	586.35
1510731.23	390820.66	586.33
1510731.70	390796.76	586.35
1510731.84	390771.37	586.29
1510732.44	390746.59	586.34
1510732.86	390722.22	586.35
1510733.47	390697.79	586.36
1510734.26	390669.63	586.36
1510734.78	390648.02	586.48
1510735.34	390623.21	586.45
1510735.88	390598.11	586.39
1510736.41	390570.23	586.28
1510736.78	390545.88	586.28
1510737.13	390521.31	586.29
1510737.77	390496.59	586.33
1510738.07	390471.93	586.32
1510738.75	390447.81	586.38
1510739.14	390423.10	586.37
1510739.57	390398.78	586.36
1510739.60	390370.44	586.50
1510739.28	390349.27	586.44
1510740.93	390320.97	586.41
1510741.25	390296.85	586.17
1510741.95	390271.95	586.38
1510742.82	390247.31	586.43
1510743.15	390219.39	586.33
1510743.73	390194.63	586.35
1510743.91	390170.34	586.32
1510744.48	390136.88	586.31
1510744.68	390121.65	586.29
1510745.38	390098.29	586.30
1510745.58	390071.81	586.26
1510746.16	390048.07	586.29
1510746.44	390021.72	586.22
1510746.82	389995.92	586.28
1510747.66	389971.73	586.30
1510748.57	389940.32	586.26
1510748.94	389921.47	586.39
1510748.12	389898.33	583.47
1510748.47	389873.91	586.54
1510750.50	389847.26	586.43
1510752.06	389795.30	586.15
1510751.35	389769.19	586.10
1510751.77	389744.70	586.04
1510752.18	389719.99	586.13
1510752.65	389695.08	586.00
1510753.07	389669.82	586.17
1510753.46	389644.82	586.05
1510753.80	389620.21	586.06
1510754.25	389595.14	586.21
1510754.59	389571.22	586.19
1510755.06	389546.35	586.20
1510755.50	389521.39	586.15
1510755.93	389496.48	586.12
1510756.36	389471.48	586.12
1510756.77	389446.90	586.15
1510757.05	389421.57	586.20
1510757.64	389397.04	586.32
1510757.98	389371.86	586.37
1510758.29	389347.12	586.34
1510758.76	389322.80	586.09
1510759.20	389300.27	586.15
1510765.12	389289.27	586.20
1510771.21	389289.44	586.18
1510777.21	389289.69	586.27
1510765.68	389265.14	585.73
1510771.69	389265.24	586.06
1510777.76	389265.55	585.88
1510759.85	389244.90	586.23
1510760.44	389220.33	586.18
1510761.14	389195.45	586.37

* ELEVATION IS TOP OF SHEET PILE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

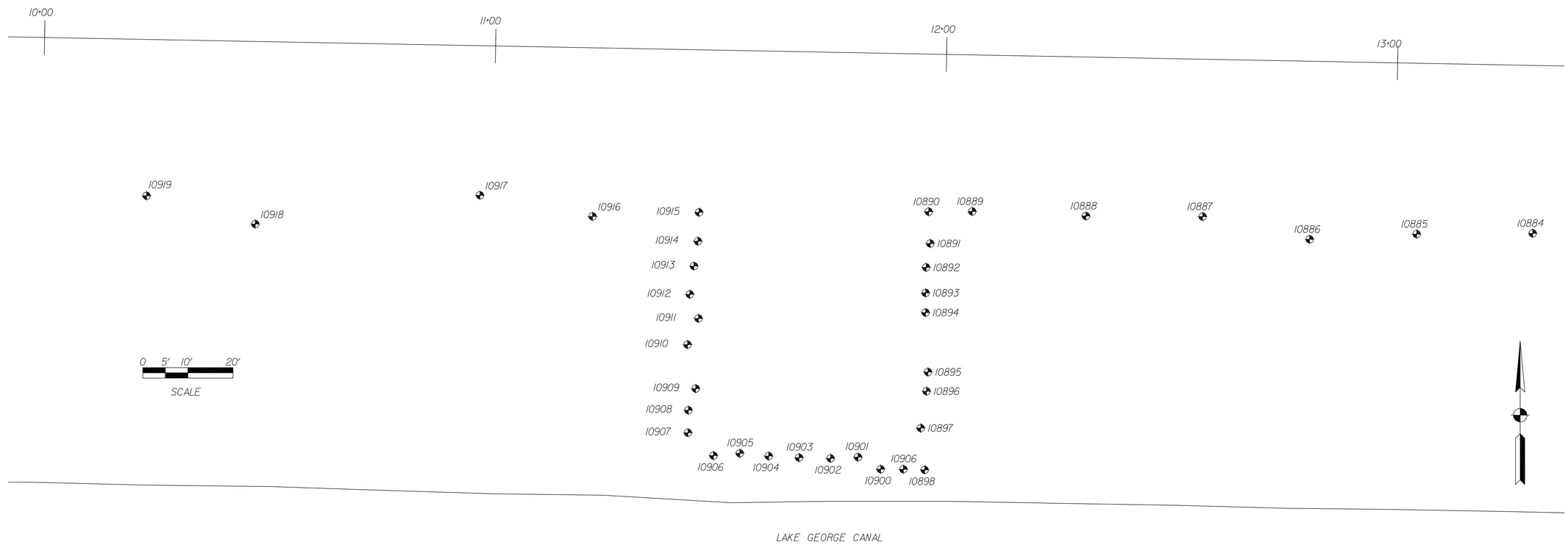
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

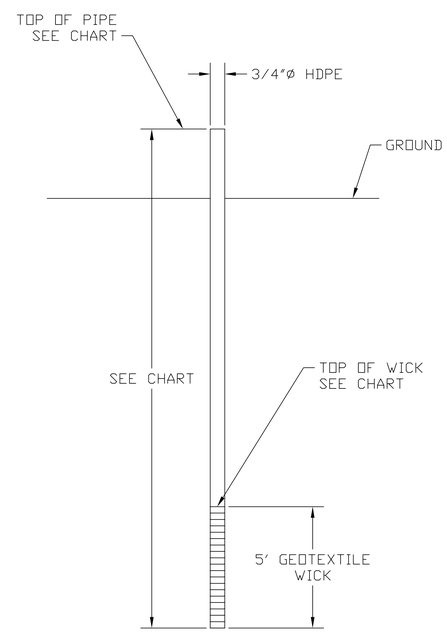
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
STEEL SHEET PILE WALL SURVEY
DATA SUMMARY 08/01/05,
08/16/05,08/29/05, AND 09/14/05

SHEET REFERENCE NUMBER:
C-13
SHEET 17 OF 21

PLOT DATE: $DATE$
FILENAME: C-13.DGN



Number	Northing	Easting	Elevation	Raw Desc	Pipe Length	Wick Length	Top Of Wick	Bottom Of Wick
10884	1510799.01	390526.92	587.06	WALL well *1	25	5.00	567.06	562.06
10885	1510798.84	390501.19	587.01	WALL well *2	25	5.00	567.01	562.01
10886	1510797.69	390477.47	587.35	WALL well *3	25	5.00	567.35	562.35
10887	1510802.73	390453.74	587.36	WALL well *4	25	5.00	567.36	562.36
10888	1510802.84	390427.88	587.33	WALL well *5	25	5.00	567.33	562.33
10889	1510803.86	390402.67	587.13	WALL well *6	25	5.00	567.13	562.13
10890	1510803.81	390393.03	587.24	WALL well *7	26	5.00	566.24	561.24
10891	1510796.76	390393.36	587.21	WALL well *8	24	5.00	568.21	563.21
10892	1510791.46	390392.46	587.15	WALL well *9	26	5.00	566.15	561.15
10893	1510785.81	390392.34	587.28	WALL well *10	24	5.00	568.28	563.28
10894	1510781.44	390392.34	587.23	WALL well *11	26	5.00	566.23	561.23
10895	1510768.27	390392.86	587.25	WALL well *12	21	5.00	571.25	571.25
10896	1510764.00	390392.54	587.26	WALL well *13	26	5.00	566.26	561.26
10897	1510755.84	390391.26	586.73	WALL well *14	25	5.00	566.73	561.73
10898	1510746.57	390392.13	586.34	WALL well *15	26	5.00	565.34	560.34
10899	1510746.70	390387.42	586.16	WALL well *16	26	5.00	565.16	560.16
10900	1510746.72	390382.37	586.12	WALL well *17	26	5.00	565.12	560.12
10901	1510749.40	390377.35	585.97	WALL well *18	26	5.00	564.97	559.97
10902	1510749.12	390371.26	587.47	WALL well *19	26	5.00	566.47	561.47
10903	1510749.28	390364.28	586.73	WALL well *20	25	5.00	566.73	561.73
10904	1510749.64	390357.55	585.64	WALL well *21	25	5.00	565.64	560.64
10905	1510750.25	390351.14	585.27	WALL well *22	26	5.00	564.27	559.27
10906	1510749.73	390345.31	586.19	WALL well *23	26	5.00	565.19	560.19
10907	1510754.80	390339.64	585.99	WALL well *24	26	5.00	564.99	559.99
10908	1510759.80	390339.74	585.75	WALL well *25	26	5.00	564.75	559.75
10909	1510764.59	390341.37	585.92	WALL well *26	26	5.00	564.92	559.92
10910	1510774.34	390339.56	586.43	WALL well *27	25	5.00	566.43	561.43
10911	1510780.14	390341.98	589.87	WALL well *28	18	5.00	576.87	571.87
10912	1510785.48	390340.07	588.44	WALL well *29	25	5.00	568.44	563.44
10913	1510791.76	390340.98	588.34	WALL well *30	25	5.00	568.34	563.34
10914	1510797.27	390341.86	587.77	WALL well *31	26	5.00	566.77	561.77
10915	1510803.67	390342.10	587.60	WALL well *32	25	5.00	567.6	562.6
10916	1510802.76	390318.50	587.86	WALL well *33	26	5.00	566.86	561.86
10917	1510807.44	390293.54	587.78	WALL well *34	24	5.00	568.78	563.78
10918	1510801.06	390243.73	587.91	WALL well *35	26	5.00	566.91	561.91
10919	1510807.34	390219.63	587.61	WALL well *36	25	5.00	567.61	562.61



TYPICAL DEWATERING WELL POINT DETAIL
N.T.S.

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

SHEET REFERENCE NUMBER:

C-14

SHEET 18 OF 21

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

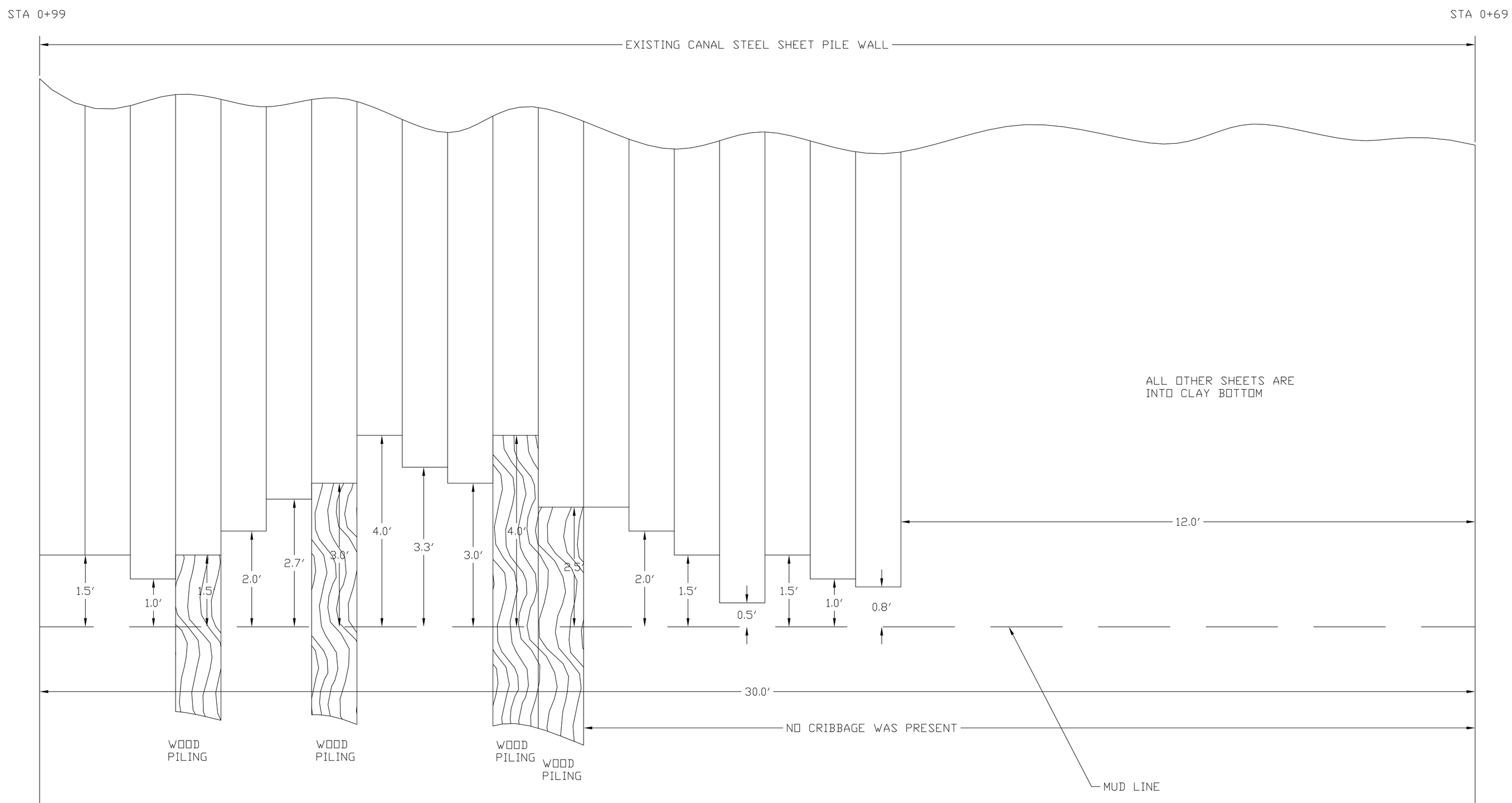
DESIGNED BY: WVN
DATE: 28 SEPT 2004
DRAWN BY: WVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
DEWATERING WELLS FOR
TIE ROD/ANCHOR
WALL INVESTIGATION

PLOT DATE: $DATE$
FILENAME: C-14.DGN



VIEW OF EXISTING CANAL STEEL SHEET PILE WALL
AND CRIBBAGE AFTER PIPE REMOVAL
VIEW IS FROM NORTH LOOKING SOUTH
(ALL DIMENSIONS ARE APPROXAMATE, AS THEY WERE OBTAINED
BY DIVERS UNDER LOW VISIBILITY AND POOR DIVE CONDITIONS.)

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US Army Corps
of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

DESIGNED BY: MVN
DATE: 29 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
SOLICITATION NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

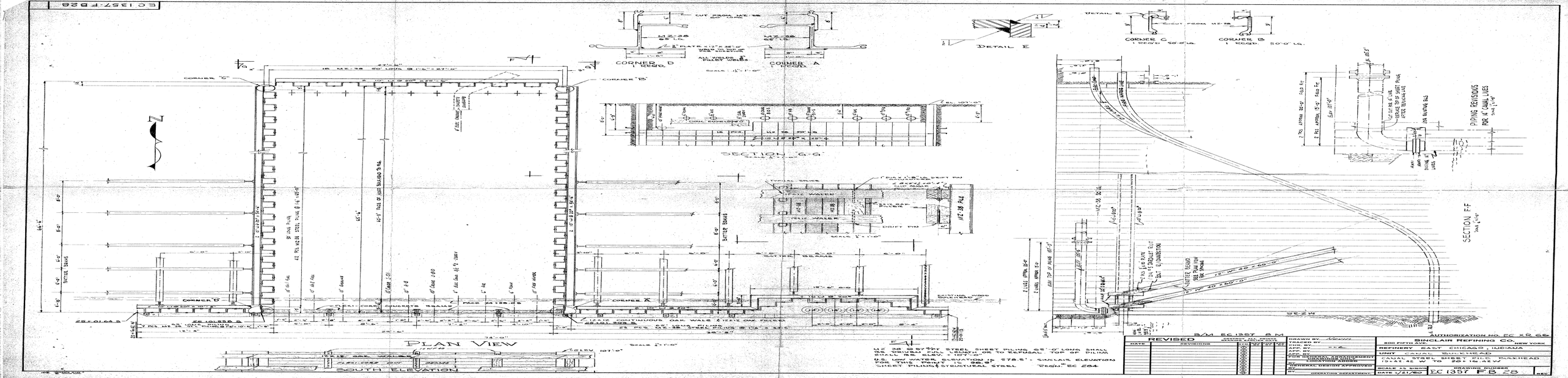
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
SUBMERGED TIMBER CRIBBAGE
AFTER PIPE REMOVAL AT
DREDGE AREA 1

SHEET
REFERENCE
NUMBER:
C-15

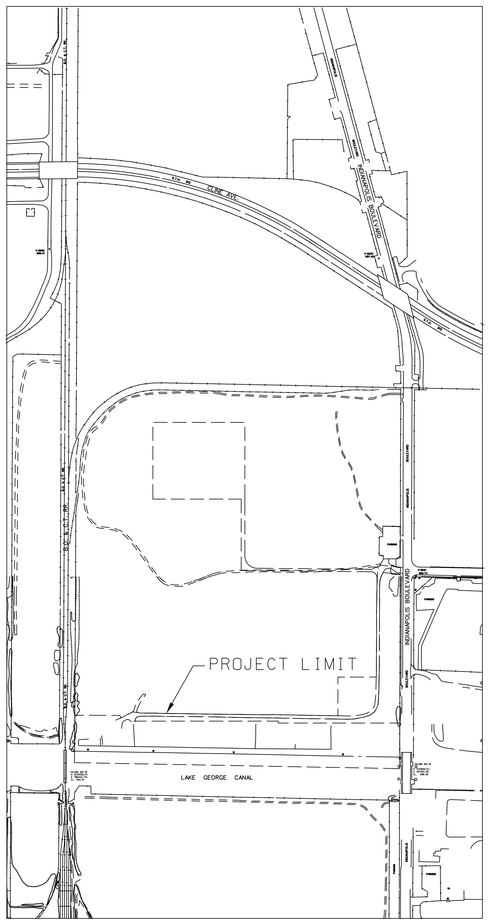
SHEET 19 OF 21

PLOT DATE: $DATE$
FILENAME: C-15.DGN

EC 1357-FB28


PLAN VIEW
SOUTH ELEVATION
SECTION G-G
SECTION F-F
DETAIL E
CORNER A
CORNER B
CORNER C
CORNER D
PIPING REVISIONS
FOR 14" CANAL LINES
WE 38 SHEET PILE
WE 38 SHEET PILING
BATTER BEAMS
REVISED P/M EC 1357 A.M.
SINCLAIR REFINING CO.
800 FIFTH AVENUE NEW YORK
REFINERY EAST CHICAGO, INDIANA
UNIT CANAL BULKHEAD
CANAL STEEL SHEET PILE BULKHEAD
EC 1357 FB 28

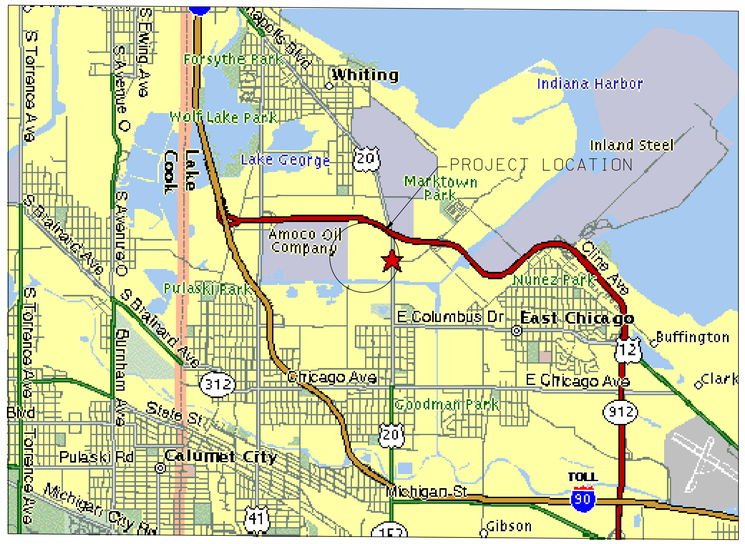
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION



SITE AREA MAP

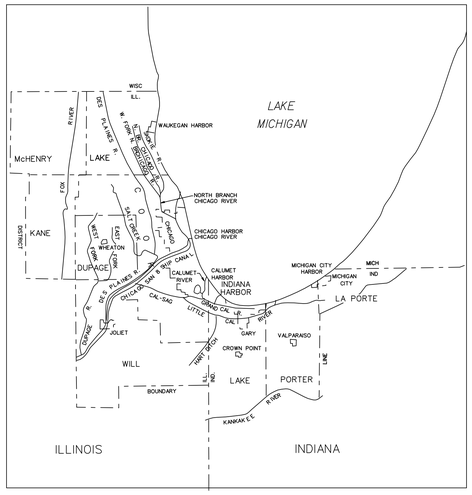
400 200 0 400 800

1 INCH = 400 FEET



LOCALITY MAP

(NOT TO SCALE)



VICINITY MAP

20 10 0 20 40

SCALE OF MILES

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

SITE AREA
LOCALITY AND VICINITY MAP

SHEET REFERENCE NUMBER:

G-01

SHEET 1 OF 21

PLOT DATE: $DATE$
FILENAME: G-01.DGN

SHEET No.	SHEET REFERENCE	TITLE
1	G-01	SITE AREA, LOCALITY, AND VICINITY MAPS
2	G-02	INDEX SHEET, STANDARD SYMBOLS, AND NOTES
3	C-01	WORK LIMITS, STAGING, STORAGE & ACCESS
4	C-01A	WORK LIMITS, STAGING, STORAGE & ACCESS
5	C-01B	TABLE OF WORK LIMITS AND SURVEY POINTS
6	C-02	EXISTING CONDITION SURVEY STA. 0+00 TO 4+50
7	C-03	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 0+00 TO 4+50
8	C-04	EXISTING CONDITION SURVEY STA. 4+50 TO 10+50
9	C-05	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 4+50 TO 10+50
10	C-06	EXISTING CONDITION SURVEY STA. 10+50 TO 16+50
11	C-07	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 10+50 TO 16+50
12	C-08	EXISTING CONDITION SURVEY STA. 16+50 TO 21+00
13	C-09	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 16+50 TO 21+00
14	C-10	EXISTING CANAL STEEL SHEETPILE BULKHEAD
15	C-11	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY 08/01/05 AND 08/16/05
16	C-12	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY 08/28/05 AND 09/14/05
17	C-13	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY DATA SUMMARY 08/01/05, 08/16/05, 08/29/05, AND 09/14/05
18	C-14	OBSTRUCTION REMOVAL AND SITE DEMOLITION WELLS FOR TIE ROD/ANCHOR WALL INVESTIGATION
19	C-15	SUBMERGED TIMBER CRIBBING AFTER PIPE REMOVAL AT DREDGE AREA 1
20	S-01	OBSTUCTION REMOVAL CHANNEL PROFILE
21	S-01	OBSTUCTION REMOVAL CHANNEL PROFILE

STANDARD SYMBOLS

BUILDING
ROAD - PAVED
ROAD - UNPAVED
TREE
TREE LINE
BRUSHLINE
PILE
UNDER CONSTRUCTION
OPEN STORAGE
CONCRETE SLAB
STREAM
GUARD RAIL
FENCE LINE
WALL
BILLBOARD
SIGN
TRAFFIC SIGNAL
MANHOLE
POLE
LIGHT POLE
EXISTING H-PILE
RAILROAD LINE
WORK LIMITS

GROUND/GRADE
FIRE HYDRANT
FLAG POLE
POST
DROP INLET
CATCH BASIN
CULVERT
LOCATED OBJECT
INDEX CONTOUR
INTERMEDIATE CONTOUR
APPROXIMATE CONTOUR
DEPRESSION CONTOUR
SPOT ELEVATION
EDGE OF WATER
MONUMENT
ELECTRIC MANHOLE
GRATED MANHOLE
GRATE DRAIN
WATER VALVE
SHRUB
GRASS/TURF
PHOTO AT THIS LOCATION
BORING LOGS

GATE VALVE
WELL
MONITORING WELL
VALVE
PUMP
ELECTRIC BOX
POWER POLE
HYDRANT
WATER VALVE
MANHOLE
PIPE
2' DIA CONCRETE PAD
BOLLARD - CONCRETE POST
GUY WIRE
SET IRON ROD
CONTROL POINT
PIPE LINE
PIPE LINE CONTINUATION UNDER CANAL
FENCE AROUND DEBRIS AREA
OVERHEAD POWERLINES
BASELINE
STRUCTURE, PIPE, OR OTHER FEATURE TO BE DEMOLISHED AND REMOVED
REMOVAL-"FENDER SYSTEM"

GENERAL NOTES

1. CONTRACTOR SHALL NOT DISPOSE OF ANY DEBRIS MATERIAL OFF SITE.
2. LAND EXCAVATIONS SHALL BE LIMITED TO REMOVAL OF IDENTIFIED OBSTRUCTIONS SHOWN ON THE PLAN.
3. CONTRACTOR SHALL CONDUCT A SURVEY TO IDENTIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE COR SHALL DECIDE IF UNIDENTIFIED UTILITIES MUST BE REMOVED.
4. PHOTOS INDICATED BY A NUMBER INSIDE A CIRCLE ON THE DRAWINGS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
5. DREDGING SHALL BE LIMITED TO THE AREA INSIDE THE SHEET PILE BOX AND ONLY AS NECESSARY TO CUT, CAP AND REMOVE THE PIPES.
6. THE EXISTING CRUSH STONE ROADWAY, DEBRIS AREA AND ACCESS SHALL BE USED OF OTHER CONTRACTORS WORKING WITHIN THE ENTIRE SITE. THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS REGARDING USAGE OF ROADWAY AND DEBRIS AREA AND TRAFFIC.

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH
DATE

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

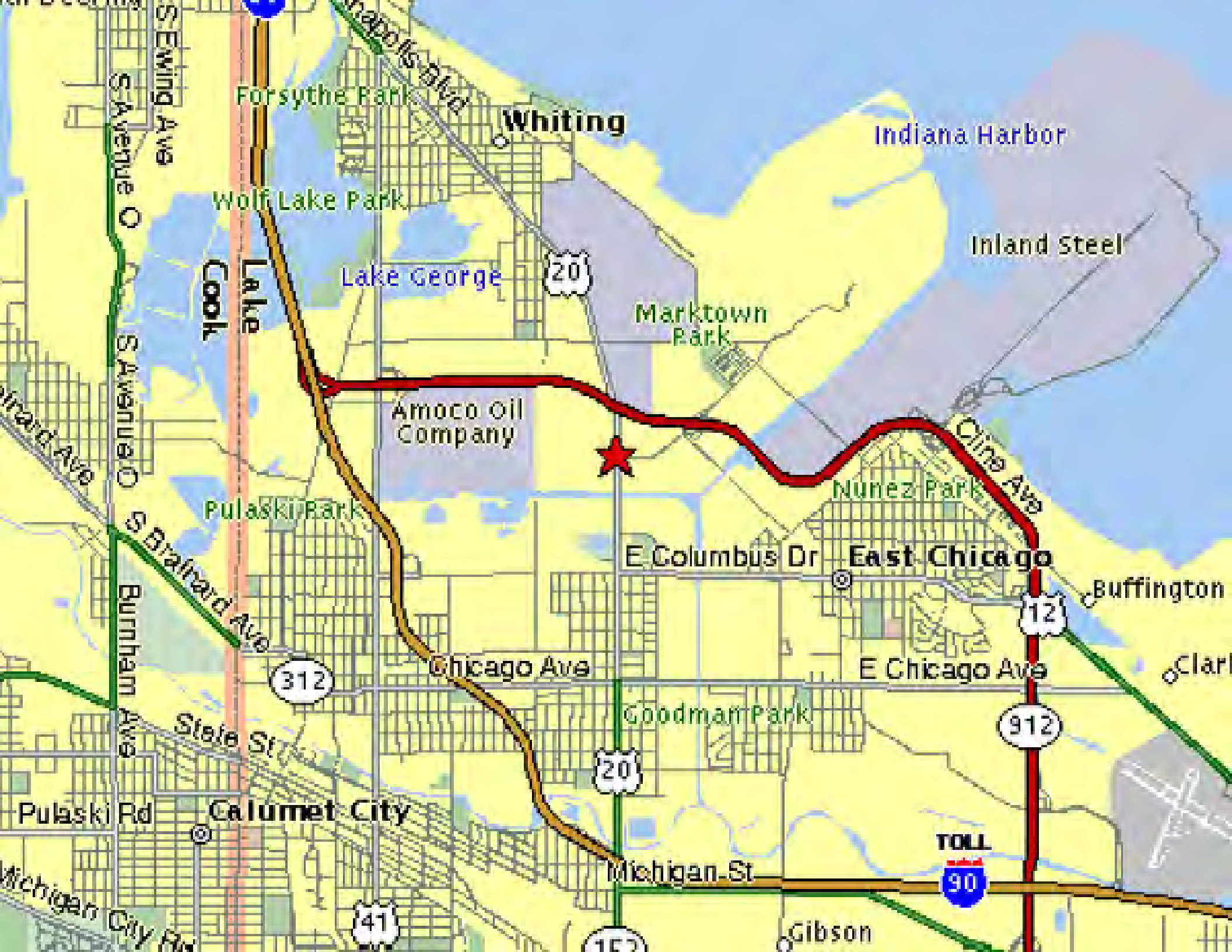
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

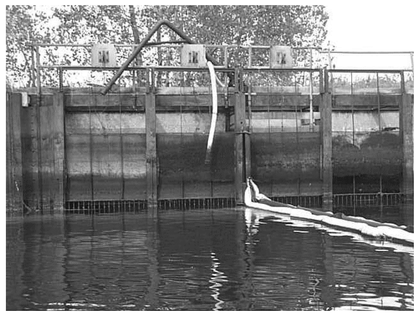
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
INDEX SHEET, STANDARD SYMBOLS AND NOTES

SHEET REFERENCE NUMBER:
G-02
SHEET 2 OF 21

PLOT DATE: $DATE$
FILENAME: G-02.DGN


Forsythe Park
Whiting
Indiana Harbor
Wolf Lake Park
Inland Steel
Lake George
20
Marktown Park
Cook
Lake
Amoco Oil Company
Cline Ave
Nunez Park
Pulaski Park
E Columbus Dr
East Chicago
Buffington
S Ewing Ave
S Avenue O
S Braiard Ave
Burnham Ave
312
Chicago Ave
E Chicago Ave
Goodman Park
912
State St
20
Pulaski Rd
Calumet City
TOLL
90
Michigan St
Michigan City Rd
41
Gibson

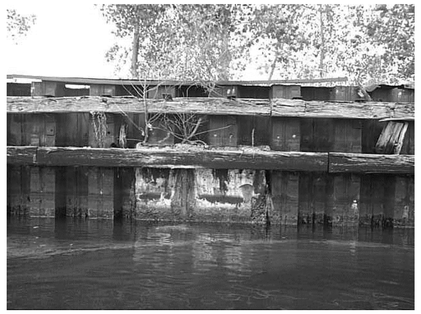


PIPE REMOVAL AREA 1

PIPE REMOVAL AREA 1

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

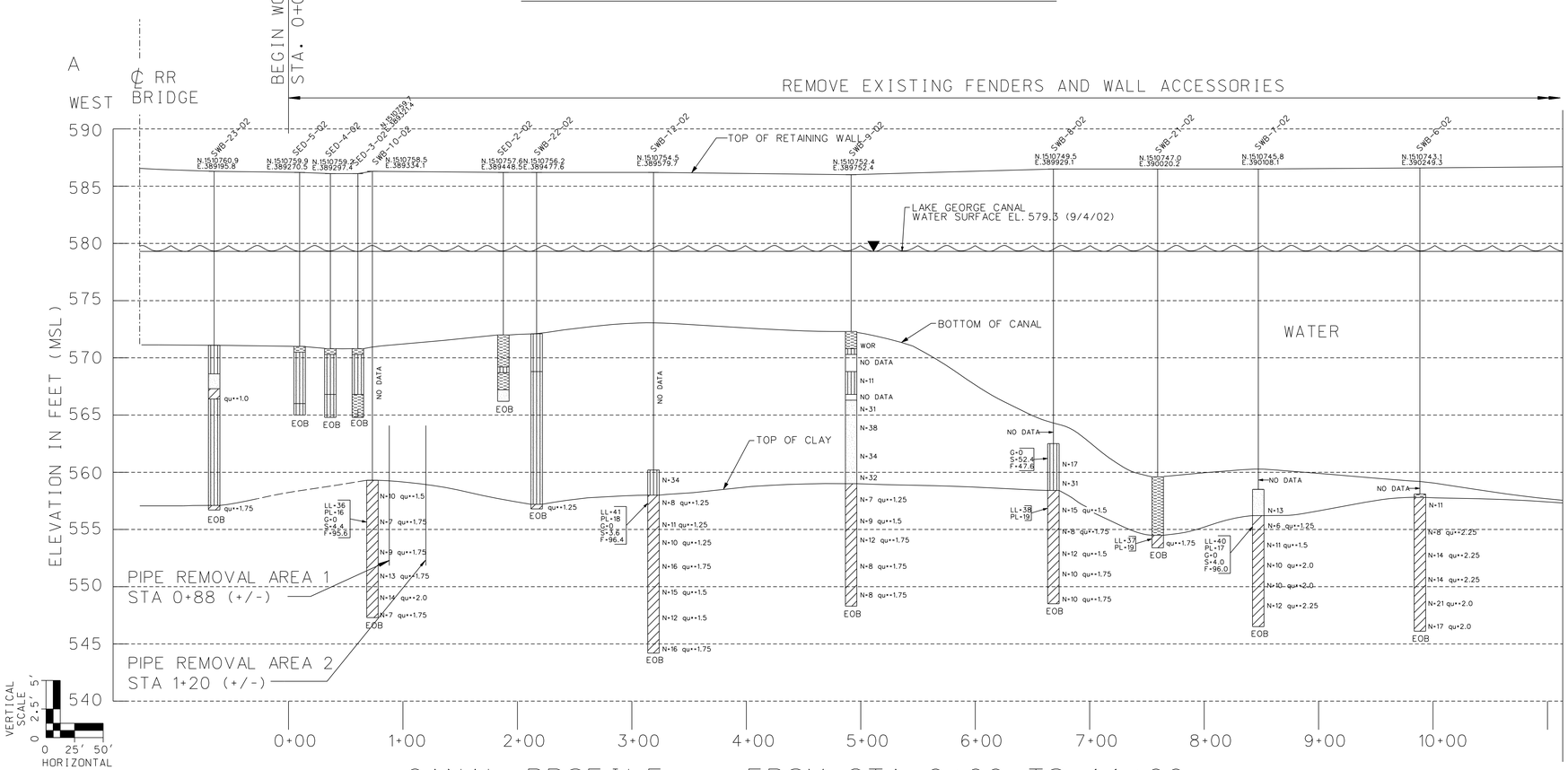


EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

REPRESENTATIVE PHOTOGRAPHS



CANAL PROFILE – FROM STA 0+00 TO 11+00

(2'-0" FROM FACE OF EXISTING STEEL SHEETPILE WALL)

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

~~GENERAL NOTES~~:

1. REPRESENTATIVE PHOTO ARE PROVIDED TO GENERALLY DEPICT THE NATURE OF REMOVAL WORK REQUIRED ON THE SHEET PILE WALL.
2. REMOVE ALL EXISTING TIMBER FENDERS AND WALL ACCESSORIES THAT PROJECT MORE THAN 3 INCHES INTO THE CANAL BEYOND THE FACE OF THE EXISTING STEEL SHEET PILE WALL BETWEEN THE LIMITS OF WORK (STA. 0+00 TO STA. 20+50)
3. REMOVAL OF TIMBER FENDER CONNECTION ASSEMBLIES SHALL INCLUDE OUTSTANDING LEGS OR FLANGES OF STEEL SHAPES AND BUILTUP MEMBERS. DEMOLITION MATERIAL SHALL BE COLLECTED AND PROPERLY DISPOSED OF ON SITE. EXISTING CONNECTION BOLTS THROUGH EXISTING SHEET PILES SHALL BE BURNED OFF FLUSH TO MINIMIZE POTENTIAL LEAKAGE OF CONTAMINATED MATERIALS IN THE CANAL.
4. PIPELINES AT LOCATIONS INDICATED SHALL BE SEALED AND REMOVED. A CONCEPTUAL PLAN HAS BEEN DEVELOPED FOR THIS WORK AS SHOWN ON DRAWING S-03. HOWEVER, THE CONTRACTOR MAY CHOOSE ALTERNATE MEANS AND METHODS TO PERFORM THIS WORK SUBJECT TO DEMONSTRATED CONSISTANCY WITH ENVIRONMENTAL CONTAINMENT CONSIDERATIONS AND APPROVAL OF THE CONTRACTING OFFICIER.
5. THE MINIMUM LENGTH OF PIPE TO BE REMOVED IS TEN (10) FEET AND THE CUT SHALL BE MADE WITHIN A ONE (1) FOOTPROJECTION FROM THE FACE OF EXISTING WALL.
6. THE CONTRACTOR SHALL DEVELOP A WORKPLAN THAT DOES NOT PLACE A SURCHARGE LOAD ON RETAINED EARTH GREATER THAN 300 POUNDS PER SQUARE FOOT WITHIN 30 FEET OF THE SHEETPILE WALL.

GRAPHIC LOG SYMBOLS

CLEAN SAND (SP, SW)
SILTY SAND (SM, SP-SM, SW-SM)
SILTY GRAVEL (GM-GM)
SILT (ML)
SILTY CLAY (CL, CH)
ORGANIC SILT (OL)
CLAYEY SAND (SC, SP-SC, SW-SC)

BORING LOG LOCATIONS
SHOWN ON SHEET C-03, C-05, C-07 AND C-09

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: WAH
DATE: 28 SEPTEMBER 2004
DRAWN BY: JT
SCALE: AS SHOWN
CHECKED BY: WKM
DRAWING CODE:
REVIEWED BY:
SOLICITATION NUMBER: W912P6-04-C-0006

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL
CHANNEL PROFILE

SHEET REFERENCE NUMBER:
S-01

SHEET 20 OF 21

PLOT DATE: $DATE$
FILENAME: $USER$ DRIVE:\USACE\0326\CIVIL\SECTION.DGN

...\2005 asbuilts\FINALS\S-01.dgn 3/6/2006 3:20:32 PM

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

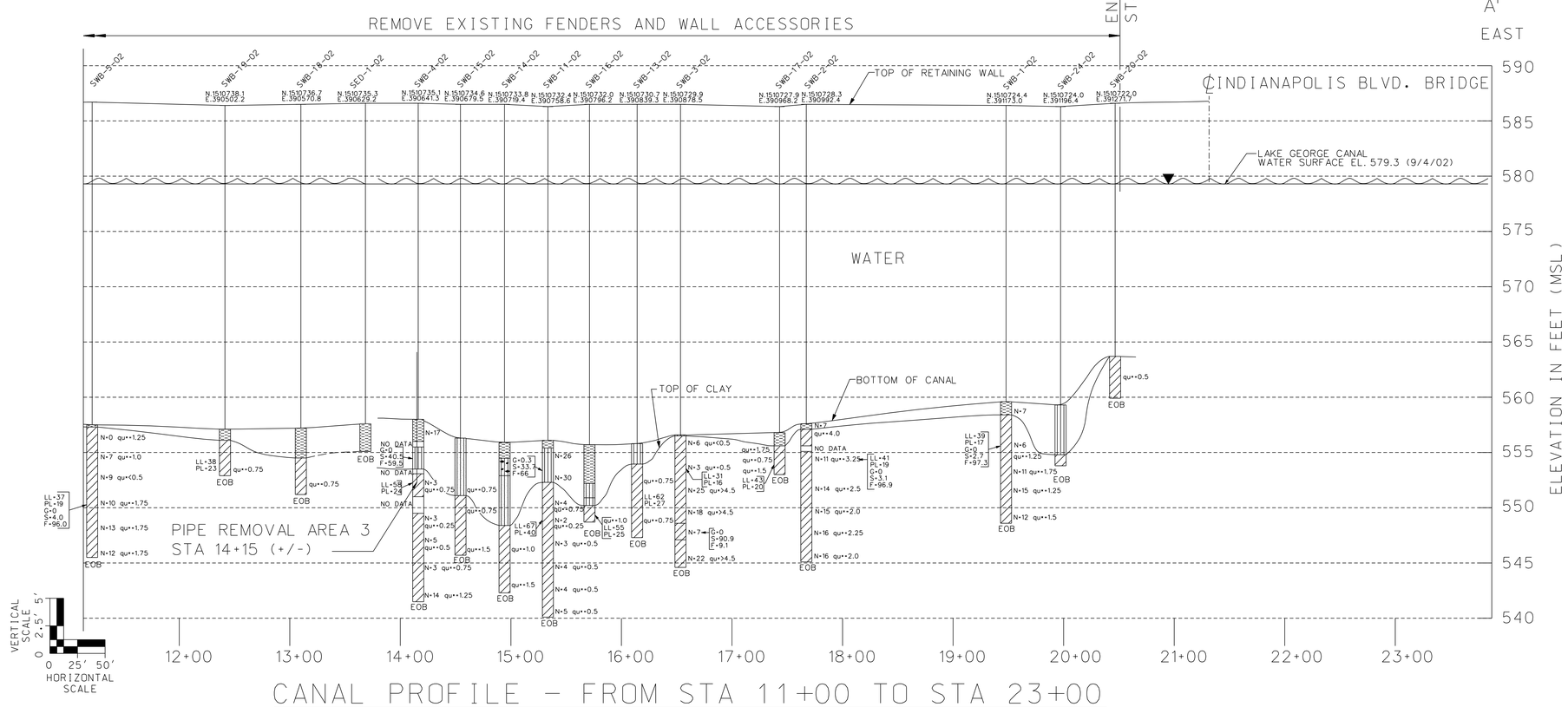
EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

REPRESENTATIVE PHOTOGRAPHS

INDIANAPOLIS BLVD. BRIDGE



CANAL PROFILE – FROM STA 11+00 TO STA 23+00

(2'-0" FROM FACE OF EXISTING STEEL SHEETPILE WALL)

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

GRAPHIC LOG SYMBOLS

- CLEAN SAND (SP,SW)
- SILTY SAND (SM, SP-SM, SW-SM)
- SILTY GRAVEL (GW-GM)
- SILT (ML)
- SILTY CLAY (CL, CH)
- ORGANIC SILT (OL)
- CLAYEY SAND (SC, SP-SC, SW-SC)

BORING LOG LOCATIONS
SHOWN ON SHEET C-03, C-05, C-07 AND C-09

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: SAL
DATE: 28 SEPTEMBER 2004
DRAWN BY: WRM
SCALE: AS SHOWN
CHECKED BY: SAL
DRAWING CODE: 9326.C1\SECTION.DGN
REVIEWED BY: JBB
SOLICITATION NUMBER: W912P6-04-C-0006

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL
CHANNEL PROFILE

SHEET REFERENCE NUMBER:
S-02

SHEET 21 OF 21

PLOT DATE: $DATE$
FILENAME: S-02.DGN

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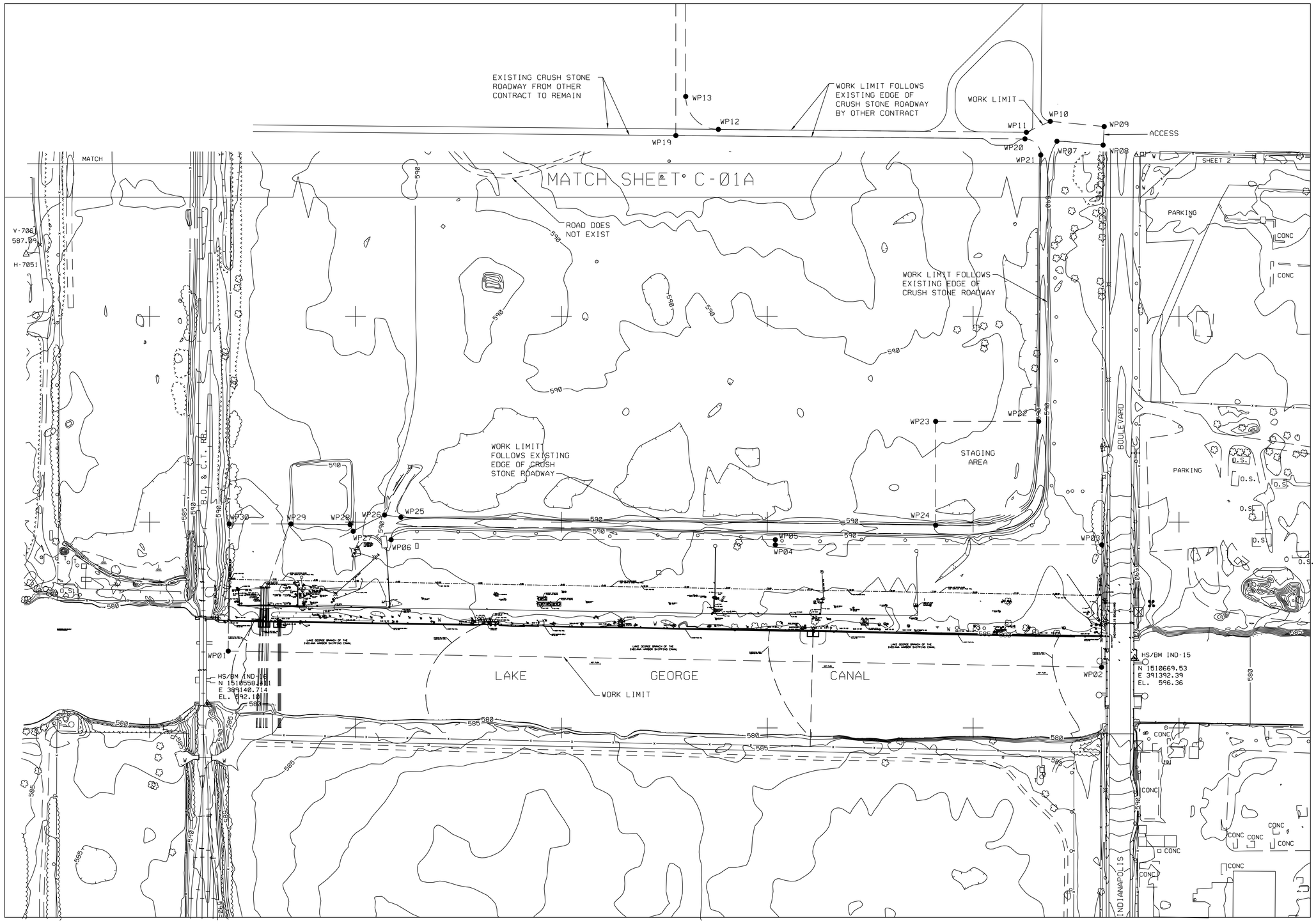
Signed as Builts



NOTE:

1. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29. THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM. DATE OF PHOTOGRAPHY: 10-21-94 AERO-METRIC ENGINEERING PROJECT NO. 1940943

2. NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

3. CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE SPECIFIED WORK LIMITS AND SHALL COORDINATE WITH OTHER CONTRACTORS ON OTHER PROJECTS USING THE DEBRIS AREAS AND ROADS.

100 50 0 100 200

1 INCH = 100 FEET

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DRAWN BY: MVN
CHECKED BY: JT
DATE: 28 SEPT 2004
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SUBMITTED BY:
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CINCINNATI, OHIO
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INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

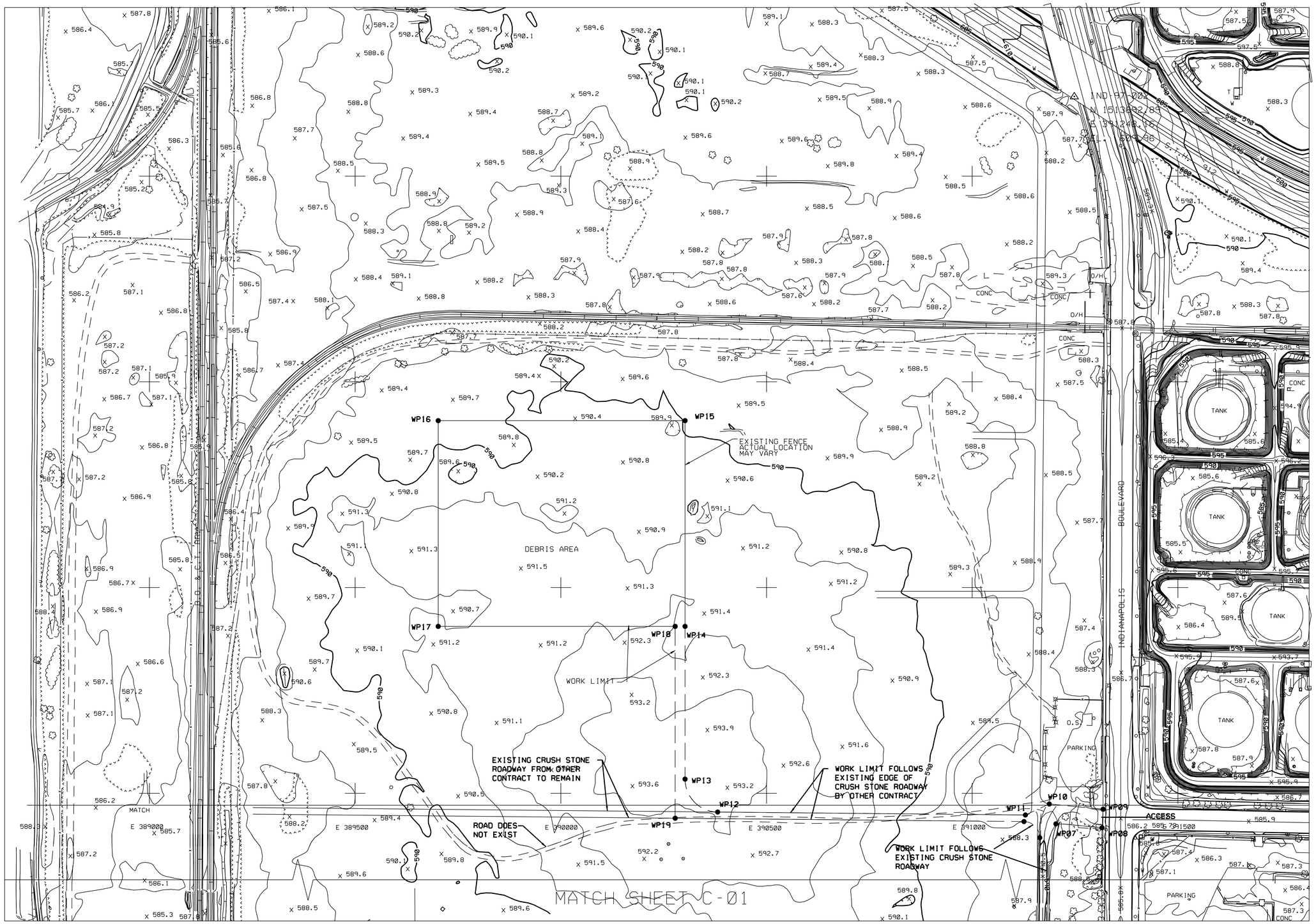
WORK LIMITS, STAGING, STORAGE & ACCESS

SHEET REFERENCE NUMBER:

C-01

SHEET 3 OF 18

PLOT DATE: 4/5/2006
FILENAME: C-01.CDG



NOTE:

1. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29.
THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM.
DATE OF PHOTOGRAPHY: 10-21-94
AERO-METRIC ENGINEERING PROJECT NO. 1940943

2. NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS
AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

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AND SHALL COORDINATE WITH OTHER CONTRACTORS ON OTHER PROJECTS USING THE
DEBRIS AREAS AND ROADS.

100 50 0 100 200
1 INCH = 100 FEET

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

DESIGNED BY: WVN
DRAWN BY: WVN
CHECKED BY: JT
DATE: 28 SEPT 2004
SCALE: AS SHOWN
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

WORK LIMITS, STAGING,
STORAGE & ACCESS

SHEET
REFERENCE
NUMBER:
C-01A
SHEET 4 OF 18

PLOT DATE: 4/6/2006
FILENAME: C-01A.DGN

WORK LIMIT

WORK POINT	NORTHING	EASTING
WP01	1,510,686.80	389,190.97
WP02	1,510,647.65	391,311.88
WP03	1,510,945.05	391,312.48
WP04	1,510,945.05	390,519.62
WP05	1,510,957.42	390,519.62
WP06	1,510,957.42	389,586.56
WP07	1,511,925.64	391,203.39
WP08	1,511,916.24	391,315.55
WP09	1,511,961.25	391,318.17
WP10	1,511,973.96	391,187.27
WP11	1,511,947.29	391,129.29
WP12	1,511,954.46	390,381.20
WP13	1,512,034.45	390,301.97
WP14	1,512,405.67	390,301.97
WP15	1,512,905.67	390,301.97
WP16	1,512,905.67	389,701.97
WP17	1,512,405.67	389,701.97
WP18	1,512,405.67	390,277.97
WP19	1,511,939.45	390,277.97
WP20	1,511,931.33	391,125.71
WP21	1,511,892.15	391,164.10
WP22	1,511,244.92	391,158.89
WP23	1,511,244.92	390,908.89
WP24	1,510,992.62	390,908.89
WP25	1,511,011.91	389,610.34
WP26	1,511,017.54	389,570.65
WP27	1,510,977.93	389,494.35
WP28	1,510,994.01	389,487.01
WP29	1,510,995.78	389,343.60
WP30	1,510,995.78	389,193.53

CURVE FROM WP13 TO WP14

WORK POINT	NORTHING	EASTING
PC(WP12)	1,511,954.46	390,381.20
PI	1,511,955.22	390,301.97
CC	1,512,034.45	390,381.97
PT(WP13)	1,512,034.45	390,301.97

RADIUS = 80.00
DELTA = 89°27'04" RIGHT
DEGREE OF CURVATURE(ARC) = 71°37'11"
LENGTH = 124.90
TANGENT = 79.24
CHORD = 112.59

SURVEY CONTROLS

POINT NUMBER	COORDINATES		ELEV.	DESCRIPTION
	NORTHING	EASTING		
IND-97-001	1,514,502.32	389,205.50	614.96	BRASS CAP TYPE I
IND-97-002	1,513,692.89	391,248.16	609.96	BRASS CAP TYPE I
HS/MB-IND-15	1,510,669.53	391,392.39	596.36	BRASS CAP TYPE I
HS/BM-IND-16	1,510,558.41	389,140.71	592.10	BRASS CAP TYPE I
IRON ROD 22	1,510,831.71	389,389.04	586.42	IRON ROD

BASELINE CONTROL POINTS

STATION	NORTHING	EASTING
0+00	1,510,861.12	389,197.21
5+00	1,510,851.78	389,697.10
10+00	1,510,842.50	390,197.05
15+00	1,510,833.10	390,696.87
20+00	1,510,823.76	391,196.83
21+11.68	1,510,821.62	391,308.51

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS OF ENGINEERS
CHICAGO DISTRICT

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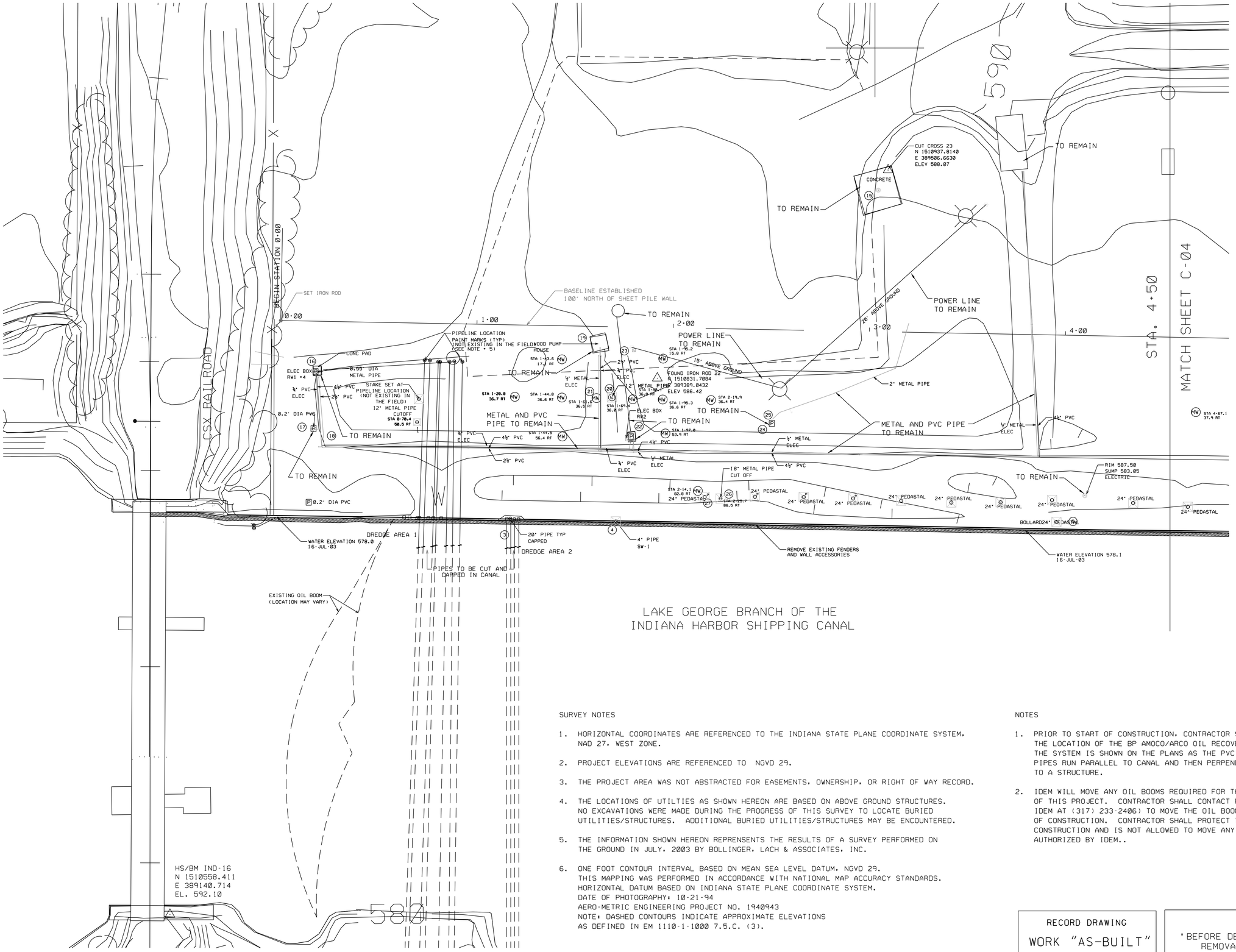
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

TABLE OF WORK LIMITS
AND SURVEY POINTS

SHEET REFERENCE NUMBER:
C-01B
SHEET 5 OF 18

PLOT DATE: 4/6/2006
FILENAME: C-01B.DGN



SURVEY NOTES

1. HORIZONTAL COORDINATES ARE REFERENCED TO THE INDIANA STATE PLANE COORDINATE SYSTEM, NAD 27, WEST ZONE.
2. PROJECT ELEVATIONS ARE REFERENCED TO NGVD 29.
3. THE PROJECT AREA WAS NOT ABSTRACTED FOR EASEMENTS, OWNERSHIP, OR RIGHT OF WAY RECORD.
4. THE LOCATIONS OF UTILTIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.
5. THE INFORMATION SHOWN HEREON REPRENSENTS THE RESULTS OF A SURVEY PERFORMED ON THE GROUND IN JULY, 2003 BY BOLLINGER, LACH & ASSOCIATES, INC.
6. ONE FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM, NGVD 29. THIS MAPPING WAS PERFORMED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. HORIZONTAL DATUM BASED ON INDIANA STATE PLANE COORDINATE SYSTEM. DATE OF PHOTOGRAPHY: 10-21-94 AERO-METRIC ENGINEERING PROJECT NO. 1940943 NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN EM 1110-1-1000 7.5.C. (3).

NOTES

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RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD DATE
CHIEF, CON. OPS. BRANCH

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DRAWN BY: MVN
CHECKED BY: JT
DATE: 28 SEPT 2004
SCALE: AS SHOWN
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

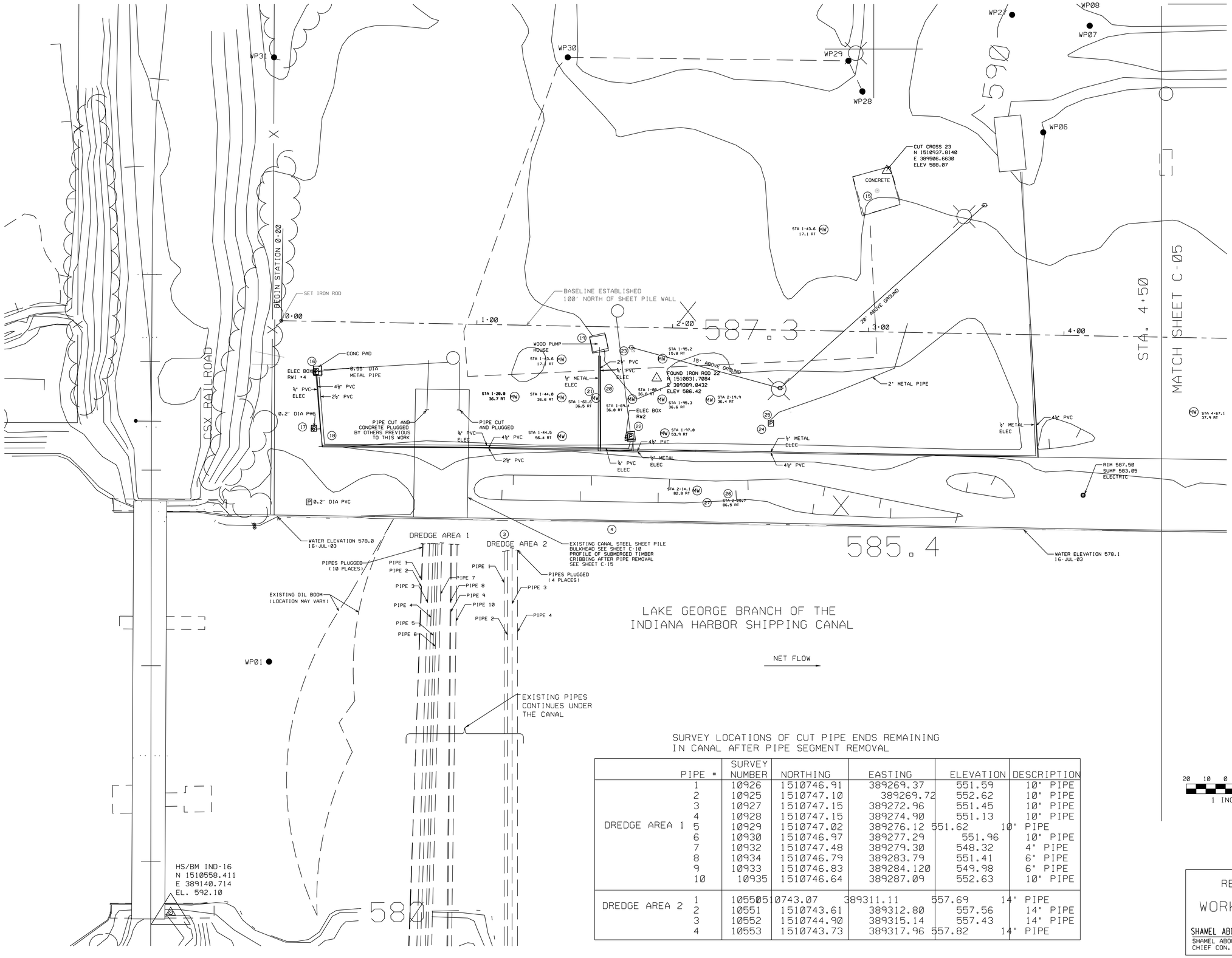
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 0+00 TO 4+50

SHEET REFERENCE NUMBER:
C-02

SHEET 06 OF 21

PLOT DATE: 10/13/04
FILENAME:



SURVEY LOCATIONS OF CUT PIPE ENDS REMAINING
IN CANAL AFTER PIPE SEGMENT REMOVAL

	PIPE #	SURVEY NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
DREDGE AREA 1	1	10926	1510746.91	389269.37	551.59	10" PIPE
	2	10925	1510747.10	389269.72	552.62	10" PIPE
	3	10927	1510747.15	389272.96	551.45	10" PIPE
	4	10928	1510747.15	389274.90	551.13	10" PIPE
	5	10929	1510747.02	389276.12	551.62	10" PIPE
	6	10930	1510746.97	389277.29	551.96	10" PIPE
	7	10932	1510747.48	389279.30	548.32	4" PIPE
	8	10934	1510746.79	389283.79	551.41	6" PIPE
	9	10933	1510746.83	389284.120	549.98	6" PIPE
	10	10935	1510746.64	389287.09	552.63	10" PIPE
DREDGE AREA 2	1	10550	1510743.07	389311.11	557.69	14" PIPE
	2	10551	1510743.61	389312.80	557.56	14" PIPE
	3	10552	1510744.90	389315.14	557.43	14" PIPE
	4	10553	1510743.73	389317.96	557.82	14" PIPE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

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DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

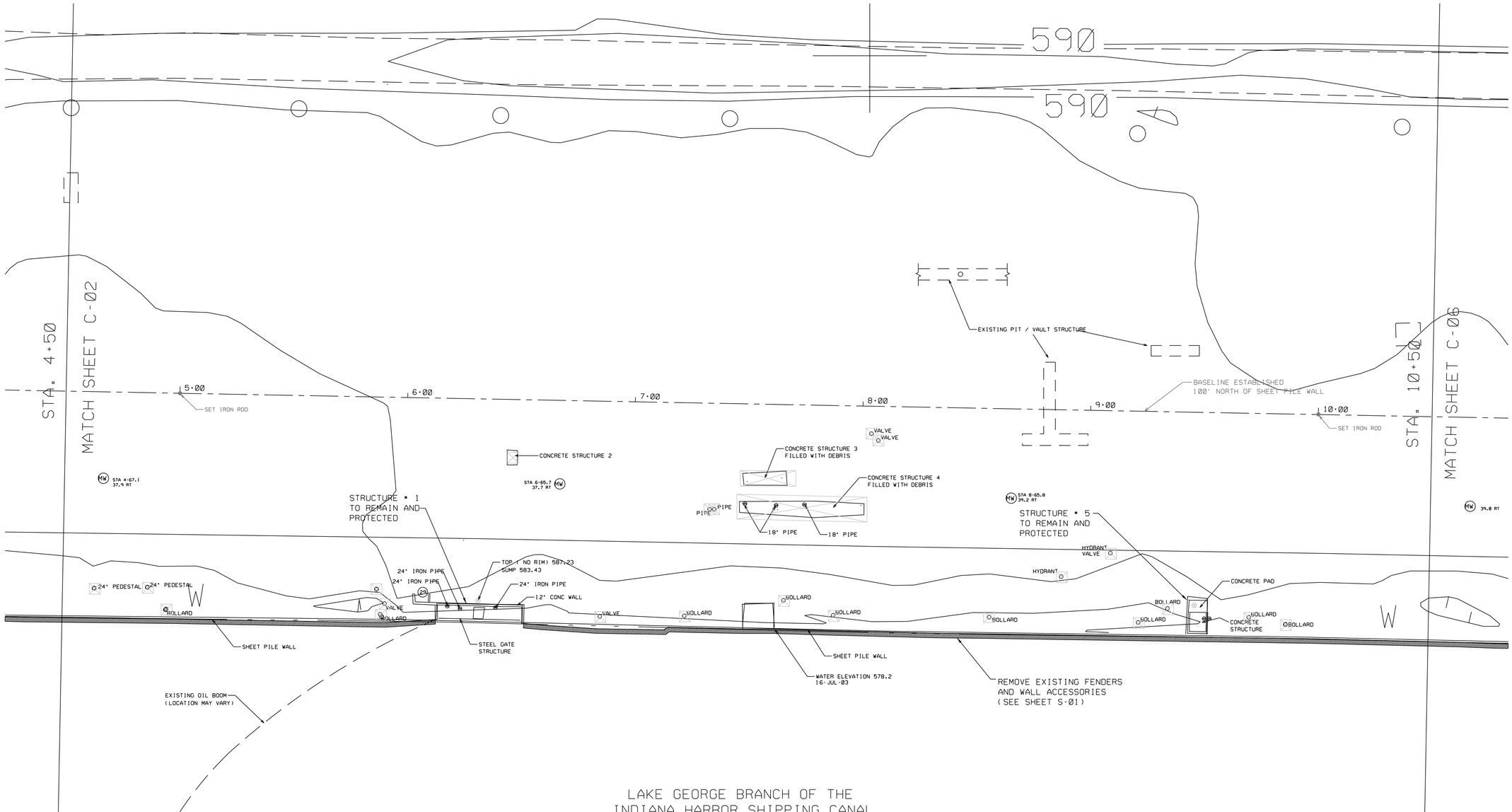
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL AND
DEMOLITION PLAN
STA. 0+00 TO 4+50

SHEET
REFERENCE
NUMBER:
C-03

SHEET 7 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-03.DGN



LAKE GEORGE BRANCH OF THE
INDIANA HARBOR SHIPPING CANAL

SURVEY NOTES

1. HORIZONTAL COORDINATES ARE REFERENCED TO THE INDIANA STATE PLANE COORDINATE SYSTEM, NAD 27, WEST ZONE.

2. PROJECT ELEVATIONS ARE REFERENCED TO NGVD 29.

3. THE PROJECT AREA WAS NOT ABSTRACTED FOR EASEMENTS, OWNERSHIP, OR RIGHT OF WAY RECORD.

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20 10 0 20 40
1 INCH = 20 FEET

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD DATE
CHIEF, CON. OPS. BRANCH

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

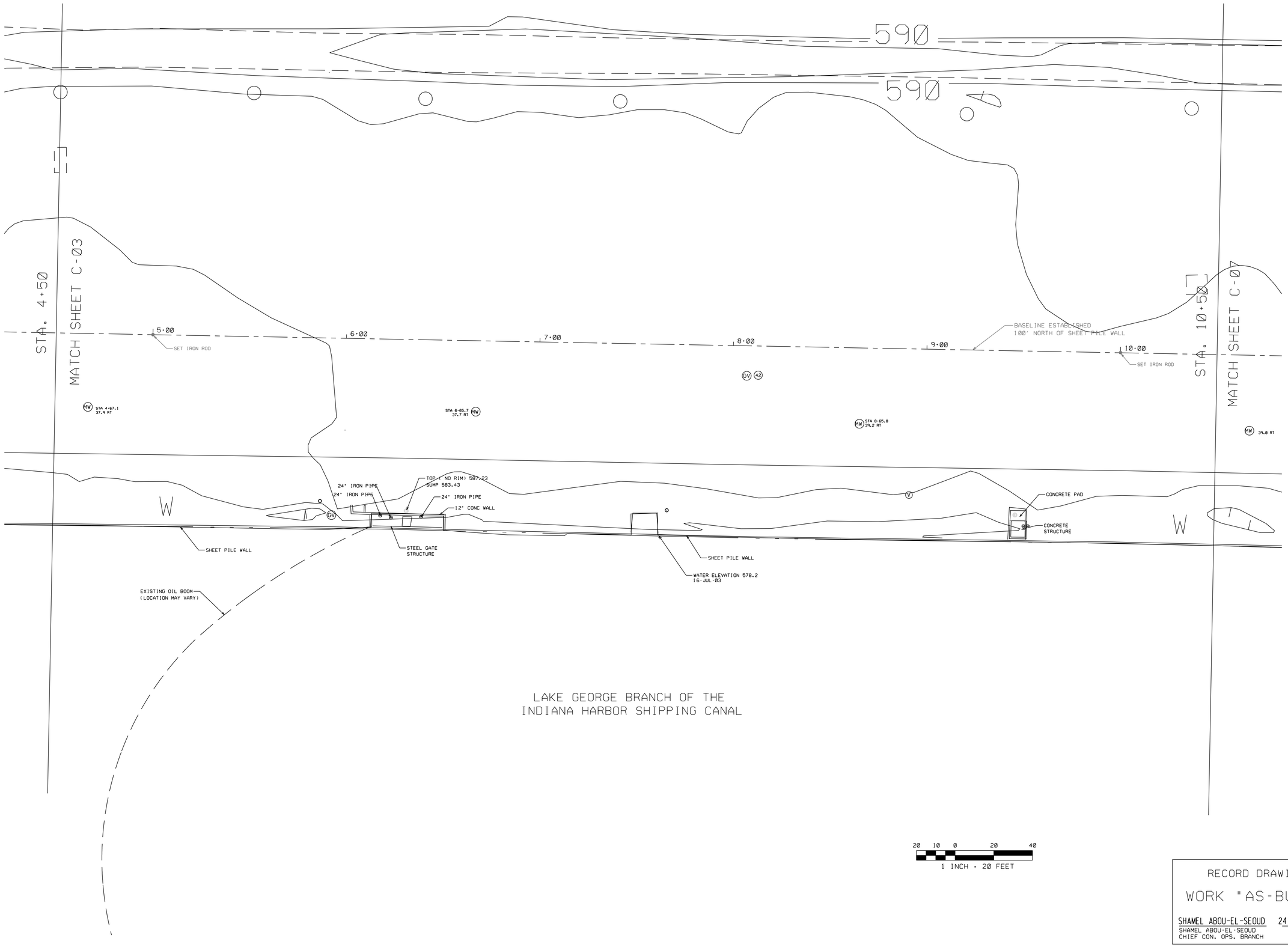
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 4+50 TO 10+50

SHEET
REFERENCE
NUMBER:
C-04

SHEET 8 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-04.DGN



RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD — DATE

CHIEF CON. OPS. BRANCH

US ARMY CORPS OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: YWN
DATE: 28 SEPT 2004
DRAWN BY: MWN
SCALE: AS SHOWN
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CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

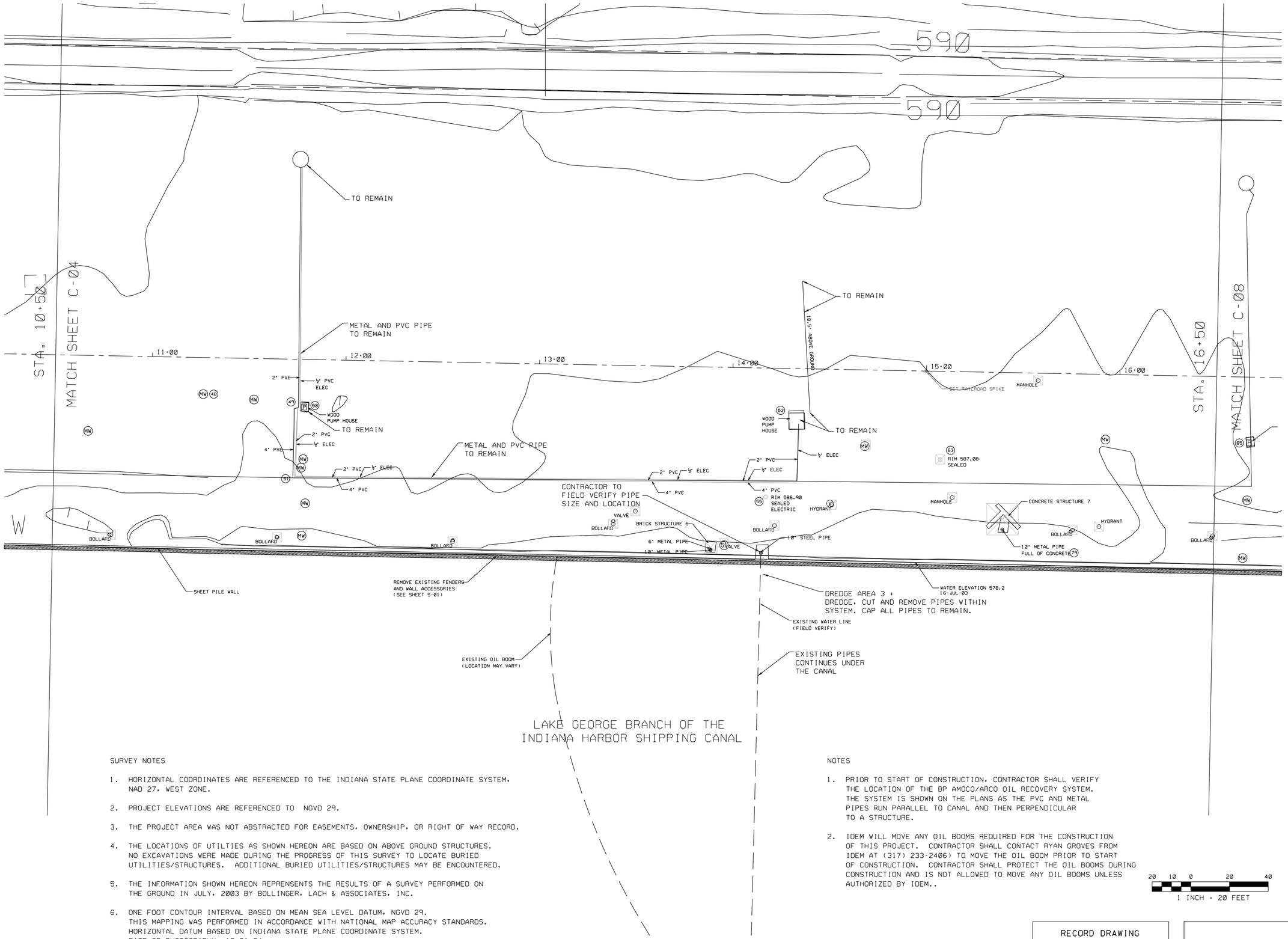
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL &
DEMOLITION AS BUILT
STA. 4+50 TO 10+50

SHEET REFERENCE NUMBER:
C-05

SHEET 9 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-05.DGN



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20 10 0 20 40
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RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD CHIEF, CON. OPS. BRANCH DATE

"BEFORE DEMOLITION/ REMOVAL WORK FOR INFORMATION ONLY"

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

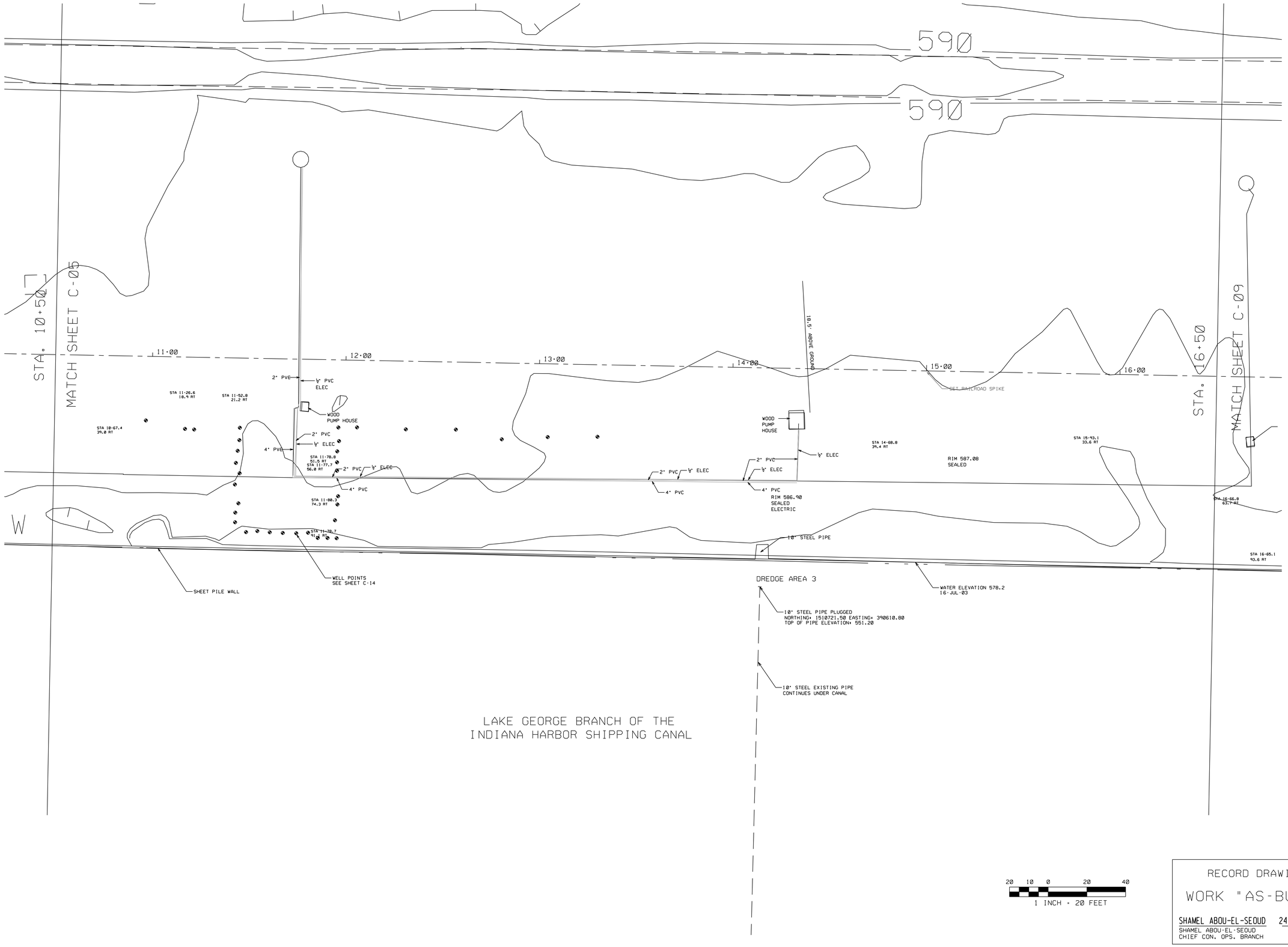
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 10+50 TO 16+50

SHEET REFERENCE NUMBER:
C-06
SHEET 10 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-06.DGN



US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
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DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL AND
DEMOLITION AS BUILT
STA. 10+50 TO 16+50

RECORD DRAWING

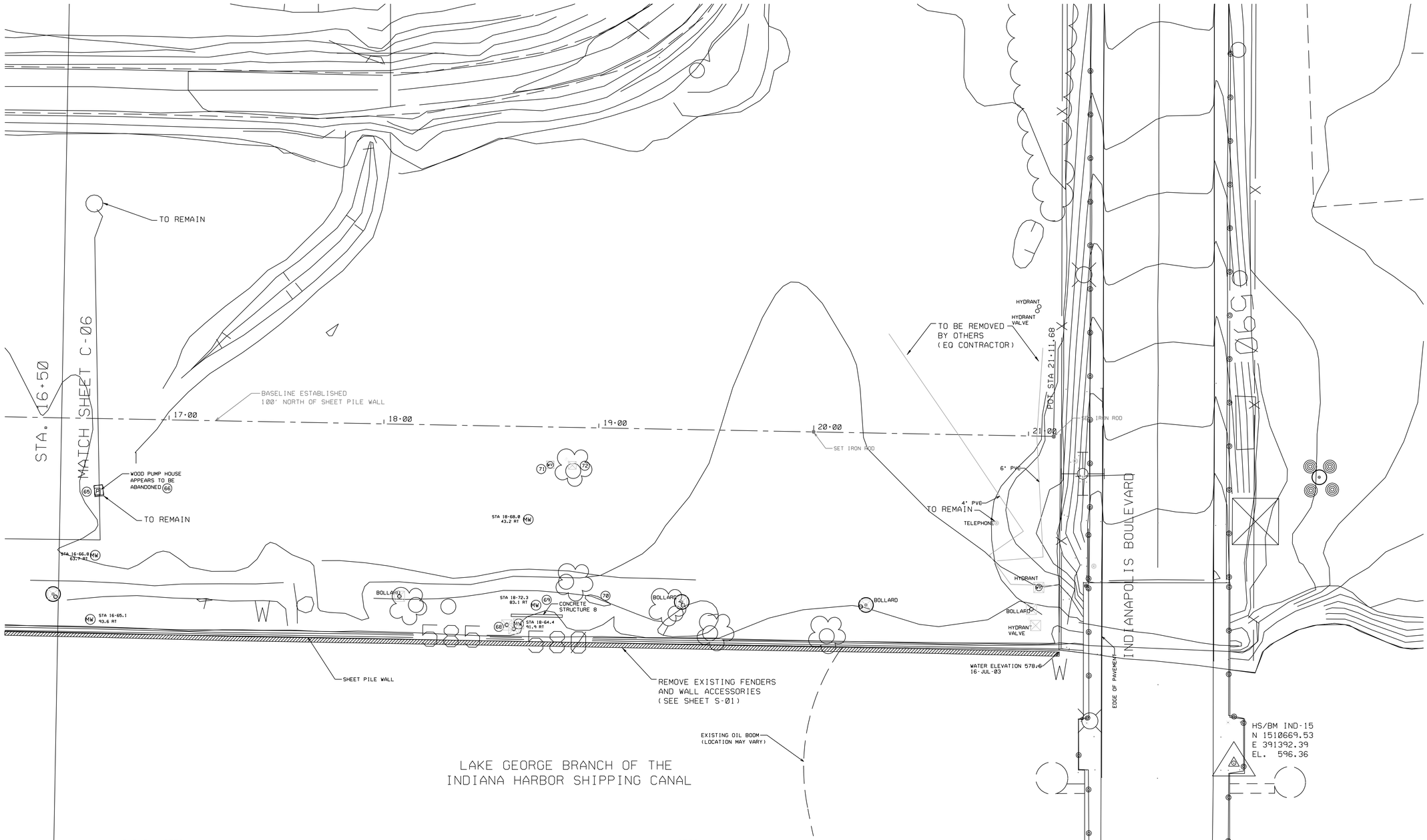
WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

SHEET
REFERENCE
NUMBER:
C-07

SHEET 11 OF 21

PLOT DATE: 4/6/2006
FILENAME: C-07.DGN



LAKE GEORGE BRANCH OF THE
INDIANA HARBOR SHIPPING CANAL

SURVEY NOTES

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20 10 0 20 40
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RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD, CHIEF, CON. OPS. BRANCH — DATE

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

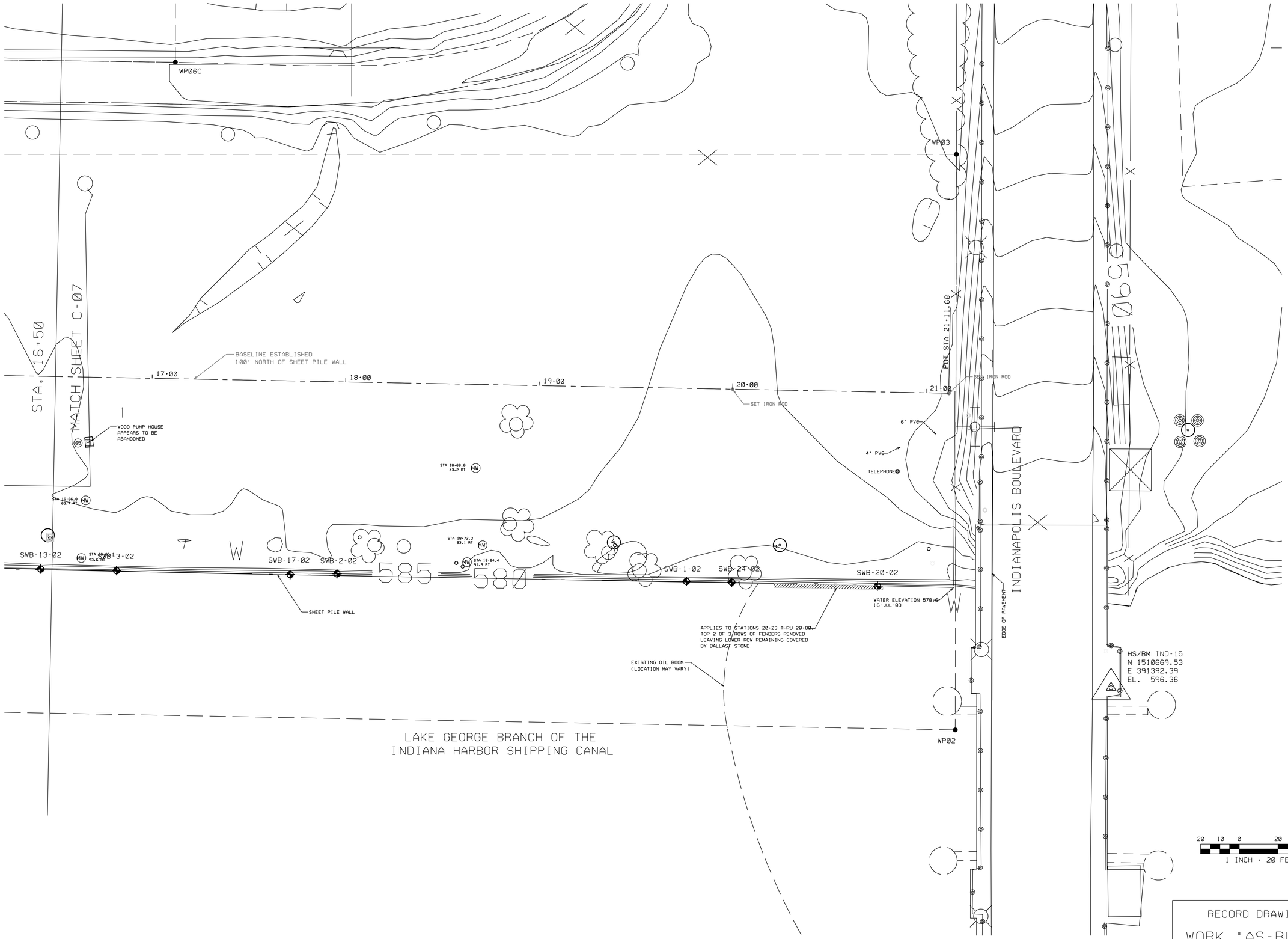
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CONDITION SURVEY
STA. 16+50 TO 21+00

SHEET
REFERENCE
NUMBER:
C-08
SHEET 12 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-08.DGN



US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

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CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL AND
DEMOLITION AS BUILT
STA. 16+50 TO 21+00

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD
SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

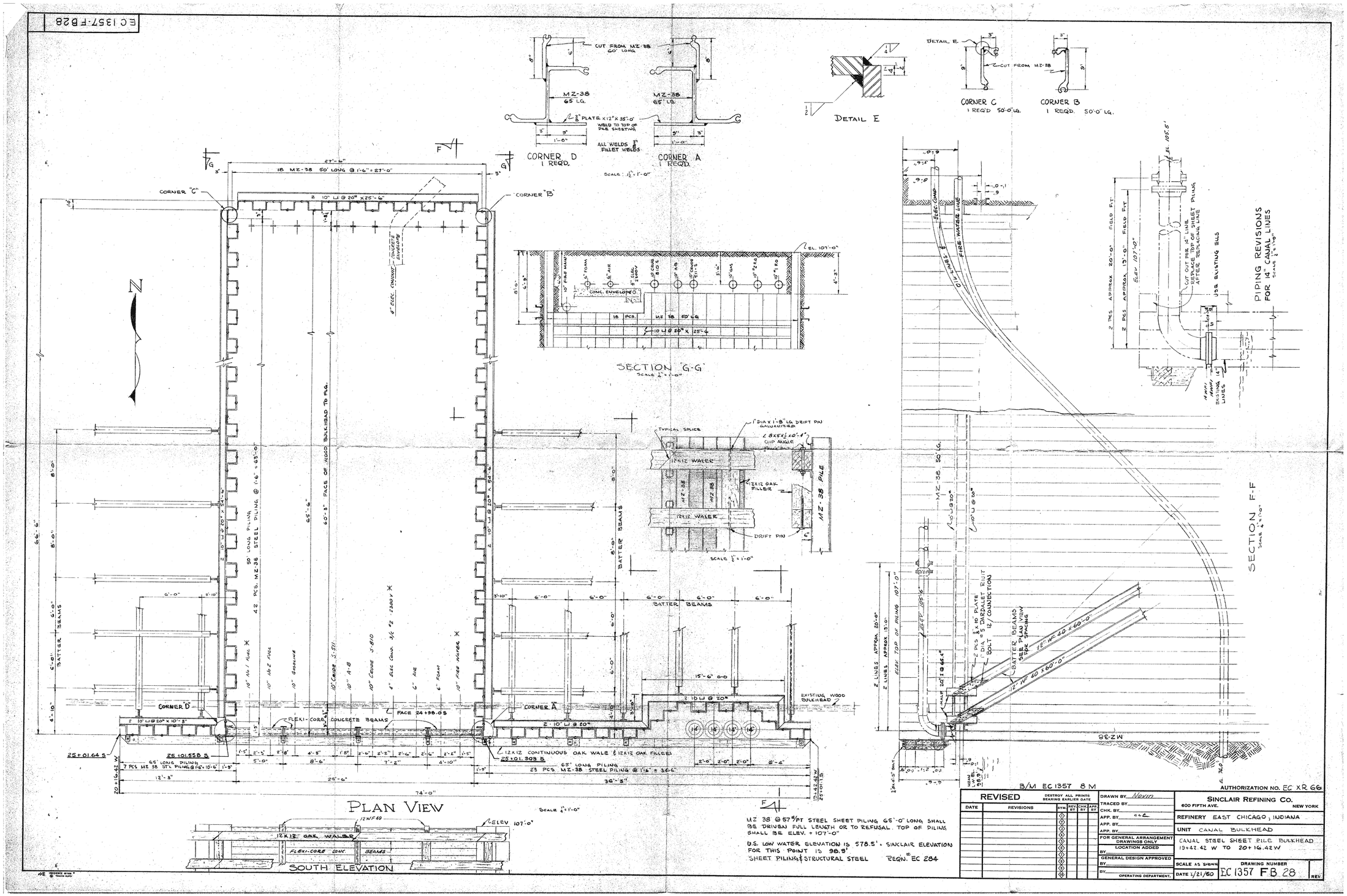
24 MARCH 2006
DATE

SHEET
REFERENCE
NUMBER:
C-09

SHEET 13 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-09.DGN

EC 1357-FB28



NOTE:

1. THIS DRAWING IS FOR REFERENCE ONLY. THE INFORMATION SHOWN MAY OR MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD MAY NOT REFLECT EXISTING SITE CONDITIONS. IT IS EXPRESSLY UNDERSTOOD THAT THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATION OR CONCLUSION DRAWN THEREFROM BY THE CONTRACTOR.

2. PIPES WITH THE SYMBOL ✕ WERE NOT SHOWN ON THE EPA REPORT DURING EPA'S REMOVAL OF 50 LF OF PIPES AS SHOW ON SHEET C-03.

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD
CHIEF. CON. OPS. BRANCH

DATE

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SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN DATE: 28 SEPT 2004
DRAWN BY: MVN SCALE: AS SHOWN
CHECKED BY: JT CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

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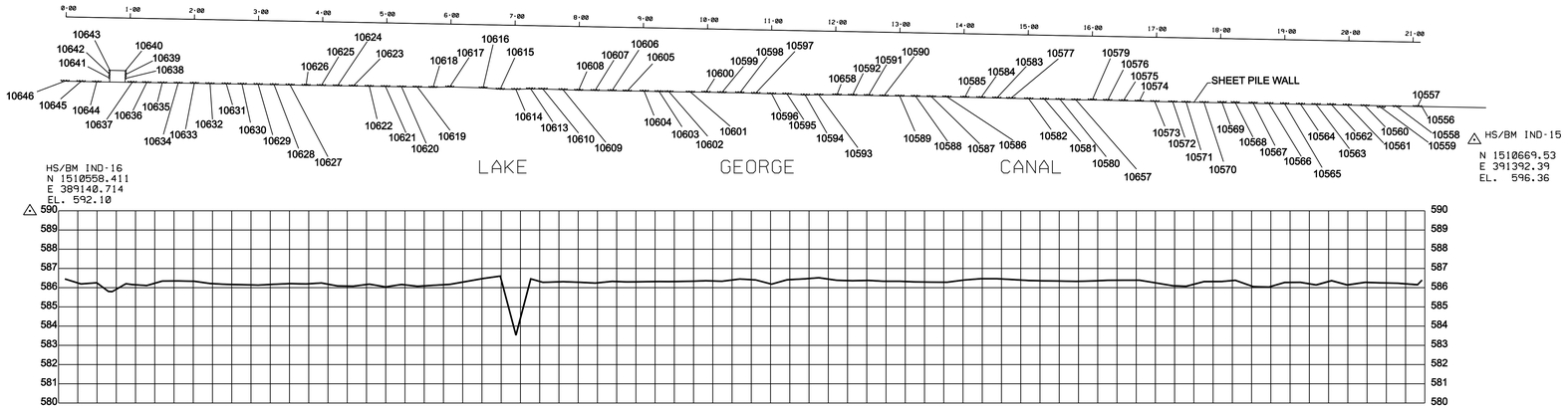
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

EXISTING CANAL STEEL SHEETPILE BULKHEAD

SHEET REFERENCE NUMBER:
C-10
SHEET 14 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-10.DGN



Indiana Harbor Canal: Sheet Pile Wall Location

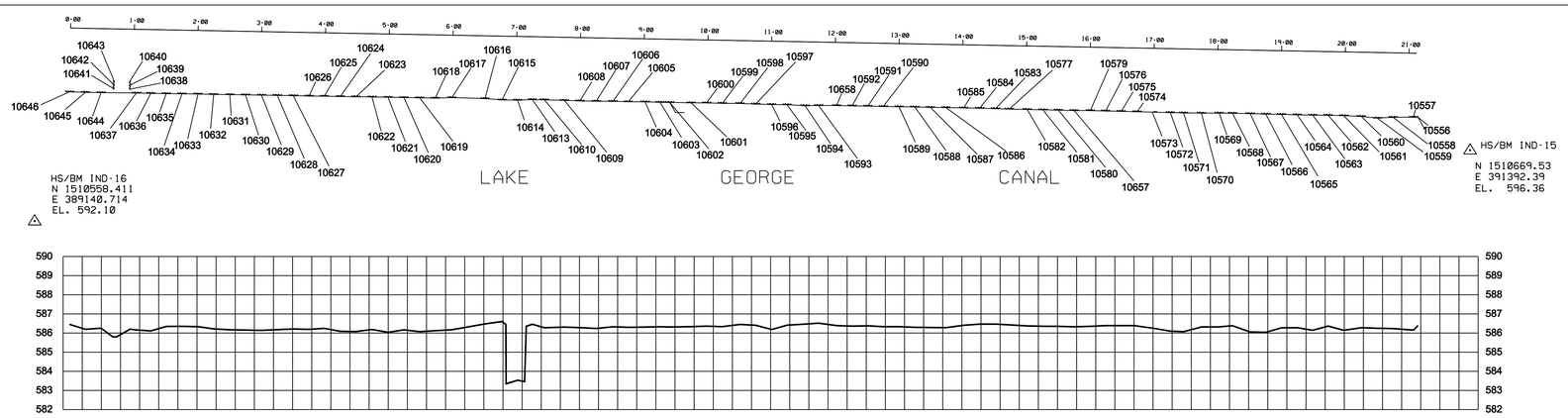
Date of Survey 08/01/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.349	391310.575	586.390
21+8.7	10557	1510721.391	391303.695	586.150
20+76.6	10558	1510721.232	391271.596	586.230
20+51.9	10559	1510719.905	391246.850	586.250
20+26.9	10560	1510722.593	391221.889	586.280
19+99.2	10561	1510723.727	391194.228	586.140
19+74.7	10562	1510724.331	391169.730	586.370
19+50.6	10563	1510724.594	391145.636	586.140
19+26.3	10564	1510725.159	391121.337	586.280
19+1.7	10565	1510725.717	391096.665	586.270
18+77.1	10566	1510726.211	391072.156	586.040
18+52.6	10567	1510726.904	391047.607	586.060
18+25.4	10568	1510727.571	391019.723	586.380
18+3.8	10569	1510727.818	390998.865	586.320
17+76.0	10570	1510727.766	390971.010	586.320
17+48.1	10571	1510728.083	390943.094	586.070
17+27.2	10572	1510728.598	390922.240	586.100
16+99.1	10573	1510729.264	390894.168	586.260
16+75.0	10574	1510729.890	390870.092	586.390
16+50.2	10575	1510730.523	390845.205	586.390
16+25.7	10576	1510731.135	390820.714	586.390
16+1.6	10579	1510731.718	390796.713	586.350
15+76.2	10657	1510731.800	390771.303	586.330
15+51.9	10580	1510732.469	390746.588	586.350
15+27.1	10581	1510732.880	390722.199	586.360
15+2.7	10582	1510733.486	390697.800	586.370
14+74.6	10577	1510734.155	390669.702	586.430
14+52.9	10583	1510734.768	390648.017	586.470
14+28.1	10584	1510735.369	390623.181	586.470
14+3.0	10585	1510735.892	390598.110	586.400
13+75.1	10586	1510736.422	390570.227	586.280
13+50.8	10587	1510736.793	390545.895	586.290
13+26.2	10588	1510737.342	390521.343	586.300

Sta. Number	Point Number	Northing	Easting	Elev. *
13+1.5	10589	1510737.756	390496.612	586.340
12+76.8	10590	1510738.072	390471.960	586.330
12+52.7	10591	1510738.726	390447.809	586.380
12+28.0	10592	1510739.128	390423.108	586.360
12+3.6	10658	1510739.588	390398.760	586.390
11+75.3	10593	1510739.679	390370.442	586.520
11+54.2	10594	1510739.397	390349.296	586.470
11+25.8	10595	1510740.921	390320.962	586.410
11+1.7	10596	1510741.257	390296.879	586.190
10+76.8	10597	1510741.968	390271.993	586.400
10+52.2	10598	1510742.846	390247.346	586.450
10+24.2	10599	1510743.154	390219.336	586.340
9+99.5	10600	1510743.746	390194.645	586.360
9+75.2	10601	1510743.931	390170.393	586.340
9+41.7	10602	1510744.499	390136.936	586.320
9+26.5	10603	1510744.700	390121.703	586.330
9+3.1	10604	1510745.392	390098.303	586.310
8+76.7	10605	1510745.596	390071.867	586.300
8+52.9	10606	1510746.190	390048.092	586.330
8+26.5	10607	1510746.437	390021.744	586.240
8+0.8	10608	1510746.840	389996.016	586.290
7+76.5	10609	1510747.703	389971.768	586.310
7+45.1	10610	1510748.622	389940.341	586.280
7+26.1	10613	1510748.967	389921.376	586.460
7+3.1	10614	1510748.135	389898.289	583.530
6+78.6	10615	1510748.430	389873.866	586.610
6+52.0	10616	1510750.505	389847.205	586.480
6+00	10617	1510752.009	389795.280	586.170
5+73.9	10618	1510751.320	389769.176	586.120
5+79.4	10619	1510751.769	389744.688	586.080
5+24.7	10620	1510752.162	389719.974	586.170
4+99.8	10621	1510752.613	389695.042	586.040
4+74.5	10622	1510753.059	389669.810	586.190

Sta. Number	Point Number	Northing	Easting	Elev. *
4+49.6	10623	1510753.420	389644.823	586.080
4+24.9	10624	1510753.766	389620.186	586.090
3+99.9	10625	1510754.266	389595.099	586.250
3+75.9	10626	1510754.548	389571.178	586.190
3+51.0	10627	1510755.056	389546.320	586.210
3+26.1	10628	1510755.510	389521.370	586.180
3+1.2	10629	1510755.918	389496.470	586.140
2+76.1	10630	1510756.396	389471.434	586.160
2+51.6	10631	1510756.751	389446.882	586.170
2+26.2	10632	1510757.065	389421.544	586.220
2+1.7	10633	1510757.663	389397.016	586.340
1+76.6	10634	1510758.000	389371.868	586.350
1+51.8	10635	1510758.323	389347.115	586.350
1+27.5	10636	1510758.759	389322.840	586.110
1+5.0	10637	1510759.216	389300.281	586.160
0+93.9	10638	1510765.123	389289.293	586.210
0+93.9	10639	1510771.233	389289.523	586.180
0+93.9	10640	1510777.257	389289.755	586.290
0+69.7	10641	1510765.675	389265.167	585.750
0+69.7	10642	1510771.690	389265.265	586.070
0+69.7	10643	1510777.756	389265.528	585.900
0+49.6	10644	1510759.858	389244.940	586.260
0+25.0	10645	1510760.424	389220.359	586.200
0+0.1	10646	1510761.047	389195.400	586.450

* ELEVATION IS TOP OF SHEET PILE



Indiana Harbor Canal: Sheet Pile Wall Location

Date of Survey 08/16/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.33	391310.59	586.40
21+8.7	10557	1510721.35	391303.70	586.16
20+76.6	10558	1510721.21	391271.59	586.24
20+51.9	10559	1510719.90	391246.72	586.27
20+26.9	10560	1510722.58	391221.87	586.28
19+99.2	10561	1510723.74	391194.19	586.15
19+74.7	10562	1510724.34	391169.70	586.37
19+50.6	10563	1510724.60	391145.61	586.14
19+26.3	10564	1510725.17	391121.29	586.28
19+1.7	10565	1510725.73	391096.66	586.27
18+77.1	10566	1510726.23	391072.15	586.03
18+52.6	10567	1510726.91	391047.56	586.05
18+25.4	10568	1510727.59	391019.70	586.37
18+3.8	10569	1510727.85	390998.84	586.30
17+76.0	10570	1510727.78	390970.97	586.30
17+48.1	10571	1510728.10	390943.07	586.09
17+27.2	10572	1510728.62	390922.18	586.09
16+99.1	10573	1510729.29	390894.12	586.26
16+75.0	10574	1510729.95	390870.04	586.38
16+50.2	10575	1510730.57	390845.16	586.39
16+25.7	10576	1510731.19	390820.65	586.35
16+1.6	10579	1510731.69	390796.75	586.31
15+76.2	10657	1510731.83	390771.37	586.27
15+51.9	10580	1510732.43	390746.61	586.31
15+27.1	10581	1510732.85	390722.23	586.33
15+2.7	10582	1510733.46	390697.80	586.34
14+74.6	10577	1510734.22	390669.64	586.40
14+52.9	10583	1510734.75	390648.03	586.44
14+28.1	10584	1510735.34	390623.18	586.43
14+3.0	10585	1510735.87	390598.12	586.37
13+75.1	10586	1510736.40	390570.20	586.25

Sta. Number	Point Number	Northing	Easting	Elev. *
13+50.8	10587	1510736.75	390545.87	586.26
13+26.2	10588	1510737.32	390521.31	586.26
13+1.5	10589	1510737.76	390496.58	586.31
12+76.8	10590	1510738.06	390471.93	586.30
12+52.7	10591	1510738.72	390447.80	586.34
12+28.0	10592	1510739.14	390423.09	586.33
12+3.6	10658	1510739.56	390398.75	586.33
11+75.3	10593	1510739.59	390370.40	586.49
11+54.2	10594	1510739.30	390349.25	586.42
11+25.8	10595	1510740.94	390320.94	586.38
11+1.7	10596	1510741.25	390296.80	586.15
10+76.8	10597	1510741.98	390271.93	586.36
10+52.2	10598	1510742.83	390247.31	586.40
10+24.2	10599	1510743.16	390219.33	586.29
9+99.5	10600	1510743.77	390194.60	586.31
9+75.2	10601	1510743.95	390170.31	586.28
9+41.7	10602	1510744.50	390136.89	586.27
9+26.5	10603	1510744.70	390121.63	586.27
9+3.1	10604	1510745.40	390098.28	586.29
8+76.7	10605	1510745.59	390071.83	586.25
8+52.9	10606	1510746.17	390048.05	586.27
8+26.5	10607	1510746.45	390021.74	586.19
8+0.8	10608	1510746.86	389995.96	586.22
7+76.5	10609	1510747.69	389971.71	586.26
7+45.1	10610	1510748.58	389940.31	586.22
7+26.1	10613	1510748.97	389921.37	586.35
7+3.1	10614	1510748.12	389880.31	583.46
6+78.6	10615	1510748.45	389873.90	586.52
6+52.0	10616	1510750.53	389847.20	586.40
6+00	10617	1510752.07	389795.31	586.14
5+73.9	10618	1510751.33	389769.22	586.05

Sta. Number	Point Number	Northing	Easting	Elev. *
5+79.4	10619	1510751.77	389744.73	586.03
5+24.7	10620	1510752.19	389720.00	586.10
4+99.8	10621	1510752.61	389695.08	585.97
4+74.5	10622	1510753.08	389669.83	586.12
4+49.6	10623	1510753.44	389644.85	586.03
4+24.9	10624	1510753.77	389620.25	586.04
3+99.9	10625	1510754.25	389595.13	586.20
3+75.9	10626	1510754.58	389571.19	586.16
3+51.0	10627	1510755.07	389546.35	586.18
3+26.1	10628	1510755.50	389521.39	586.14
3+1.2	10629	1510755.96	389496.47	586.10
2+76.1	10630	1510756.38	389471.48	586.13
2+51.6	10631	1510756.74	389446.90	586.14
2+26.2	10632	1510757.06	389421.53	586.20
2+1.7	10633	1510757.66	389397.02	586.31
1+76.6	10634	1510757.99	389371.87	586.33
1+51.8	10635	1510758.32	389347.11	586.32
1+27.5	10636	1510758.76	389322.83	586.09
1+5.0	10637	1510759.20	389300.26	586.13
0+93.9	10638	1510765.10	389289.28	586.18
0+93.9	10639	1510771.21	389289.46	586.17
0+93.9	10640	1510777.23	389289.70	586.27
0+69.7	10641	1510765.67	389265.13	585.70
0+69.7	10642	1510771.68	389265.24	586.02
0+69.7	10643	1510777.75	389265.54	585.85
0+49.6	10644	1510759.86	389244.91	586.19
0+25.0	10645	1510760.44	389220.33	586.15
0+0.1	10646	1510761.09	389195.46	586.33

* ELEVATION IS TOP OF SHEET PILE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD, CHIEF CON. OPS. BRANCH — DATE

SHEET REFERENCE NUMBER: C-11

SHEET 15 OF 21

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

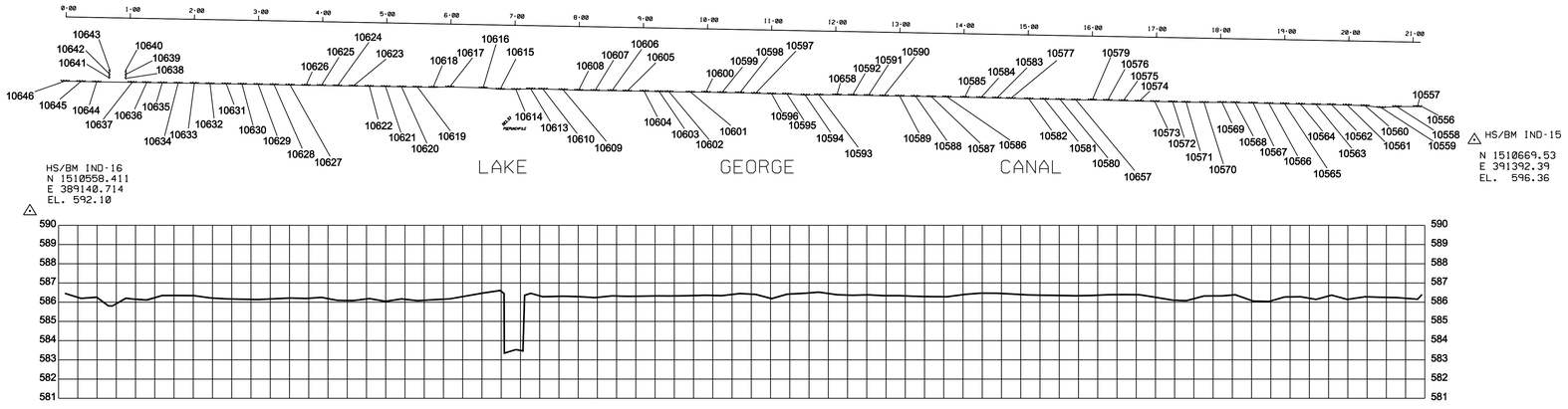
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

STEEL SHEET PILE
WALL SURVEY
08/01/05 AND 08/16/05

PLOT DATE: 4/5/2006
FILENAME: C-11.DGN



Indiana Harbor Canal: Sheet Pile Wall Location

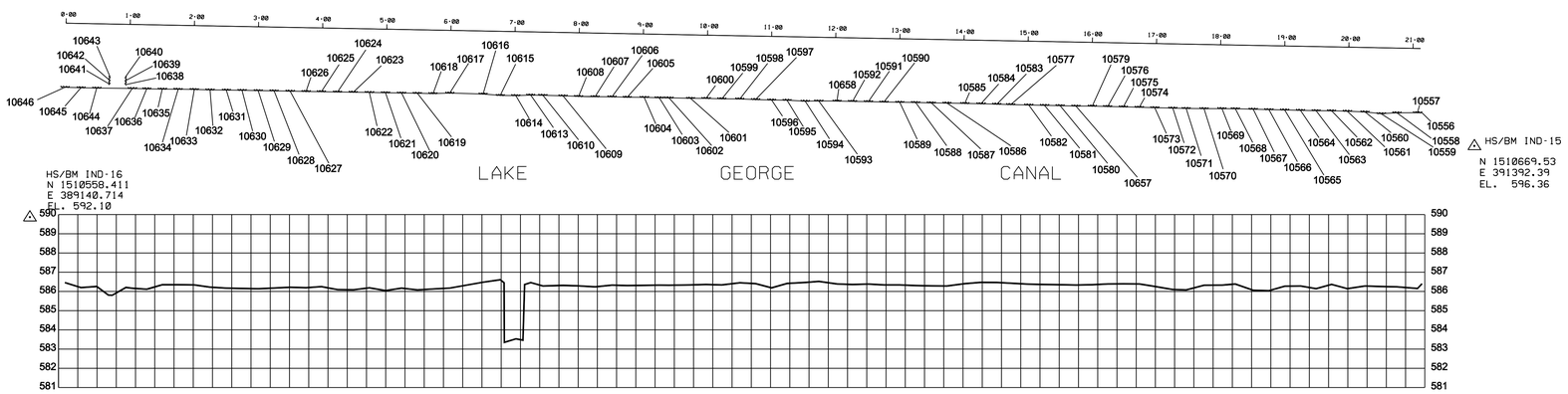
Date of Survey 08/29/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.36	391310.57	586.40
21+8.7	10557	1510721.28	391303.72	586.15
20+76.6	10558	1510721.22	391271.59	586.24
20+51.9	10559	1510719.91	391246.72	586.27
20+26.9	10560	1510722.61	391221.89	586.28
19+99.2	10561	1510723.74	391194.21	586.15
19+74.7	10562	1510724.35	391169.69	586.37
19+50.6	10563	1510724.61	391145.62	586.13
19+26.3	10564	1510725.16	391121.29	586.27
19+1.7	10565	1510725.73	391096.66	586.27
18+77.1	10566	1510726.25	391072.14	586.03
18+52.6	10567	1510726.93	391047.62	586.05
18+25.4	10568	1510727.59	391019.71	586.37
18+3.8	10569	1510727.84	390998.83	586.29
17+76.0	10570	1510727.80	390970.95	586.29
17+48.1	10571	1510728.08	390943.04	586.08
17+27.2	10572	1510728.59	390922.17	586.08
16+99.1	10573	1510729.29	390894.14	586.24
16+75.0	10574	1510729.94	390870.04	586.35
16+50.2	10575	1510730.54	390845.18	586.35
16+25.7	10576	1510731.18	390820.64	586.32
16+1.6	10579	1510731.69	390796.71	586.33
15+76.2	10657	1510731.81	390771.34	586.27
15+51.9	10580	1510732.43	390746.61	586.34
15+27.1	10581	1510732.83	390722.20	586.34
15+2.7	10582	1510733.43	390697.76	586.34
14+74.6	10577	1510734.22	390669.61	586.36
14+52.9	10583	1510734.74	390648.01	586.46
14+28.1	10584	1510735.31	390623.14	586.45
14+3.0	10585	1510735.86	390598.08	586.37
13+75.1	10586	1510736.39	390570.21	586.26

Sta. Number	Point Number	Northing	Easting	Elev. *
13+50.8	10587	1510736.77	390545.86	586.28
13+26.2	10588	1510737.34	390521.30	586.28
13+1.5	10589	1510737.78	390496.56	586.33
12+76.8	10590	1510738.07	390471.89	586.32
12+52.7	10591	1510738.72	390447.76	586.36
12+28.0	10592	1510739.14	390423.08	586.35
12+3.6	10658	1510739.58	390398.74	586.34
11+75.3	10593	1510739.60	390370.38	586.49
11+54.2	10594	1510739.29	390349.24	586.44
11+25.8	10595	1510740.95	390320.90	586.38
11+1.7	10596	1510741.27	390296.78	586.16
10+76.8	10597	1510742.03	390271.89	586.37
10+52.2	10598	1510742.87	390247.25	586.41
10+24.2	10599	1510743.19	390219.29	586.30
9+98.5	10600	1510743.82	390194.55	586.32
9+75.2	10601	1510743.98	390170.27	586.30
9+41.7	10602	1510744.57	390136.83	586.28
9+26.5	10603	1510744.76	390121.61	586.26
9+3.1	10604	1510745.45	390098.24	586.30
8+76.7	10605	1510745.68	390071.77	586.26
8+52.9	10606	1510746.30	390047.98	586.28
8+26.5	10607	1510746.55	390021.66	586.19
8+0.8	10608	1510747.00	389995.92	586.22
7+76.5	10609	1510747.79	389971.70	586.27
7+45.1	10610	1510748.68	389940.24	586.20
7+26.1	10613	1510748.92	389921.40	586.36
7+3.1	10614	1510747.95	389898.30	583.43
6+78.6	10615	1510748.30	389873.92	586.51
6+52.0	10616	1510750.32	389847.25	586.40
6+00	10617	1510751.94	389795.26	586.11
5+73.9	10618	1510751.21	389769.17	586.04

Sta. Number	Point Number	Northing	Easting	Elev. *
5+79.4	10619	1510751.67	389744.68	586.01
5+24.7	10620	1510752.05	389719.98	586.11
4+99.8	10621	1510752.50	389695.05	585.97
4+74.5	10622	1510753.04	389669.82	586.14
4+49.6	10623	1510753.35	389644.79	586.02
4+24.9	10624	1510753.74	389620.15	586.05
3+99.9	10625	1510754.25	389595.10	586.20
3+75.9	10626	1510754.54	389571.19	586.15
3+51.0	10627	1510755.03	389546.32	586.18
3+26.1	10628	1510755.45	389521.35	586.15
3+1.2	10629	1510755.92	389496.44	586.10
2+76.1	10630	1510756.36	389471.44	586.13
2+51.6	10631	1510756.74	389446.88	586.14
2+26.2	10632	1510757.05	389421.53	586.20
2+1.7	10633	1510757.66	389396.98	586.31
1+76.6	10634	1510758.02	389371.87	586.33
1+51.8	10635	1510758.35	389347.07	586.33
1+27.5	10636	1510758.82	389322.80	586.09
1+5.0	10637	1510759.21	389300.20	586.14
0+93.9	10638	1510765.12	389289.26	586.18
0+93.9	10639	1510771.22	389289.45	586.16
0+93.9	10640			
0+69.7	10641	1510765.68	389265.14	585.71
0+69.7	10642	1510771.68	389265.23	586.04
0+69.7	10643	1510777.75	389265.54	585.87
0+49.6	10644	1510759.89	389244.92	586.21
0+25.0	10645	1510760.45	389220.33	586.15
0+0.1	10646	1510761.13	389195.49	586.35

* ELEVATION IS TOP OF SHEET PILE



Indiana Harbor Canal: Sheet Pile Wall Location

Date of Survey 09/14/2005

Point Number	Northing	Easting	Elev. *
10556	1510721.34	391310.57	586.39
10557	1510721.36	391303.70	586.15
10558	1510721.21	391271.56	586.24
10559	1510719.89	391246.71	586.25
10560	1510722.59	391221.89	586.27
10561	1510723.75	391194.21	586.13
10562	1510724.34	391169.70	586.36
10563	1510724.62	391145.62	586.12
10564	1510725.18	391121.31	586.26
10565	1510725.74	391096.66	586.24
10566	1510726.24	391072.17	586.00
10567	1510726.92	391047.60	586.03
10568	1510727.59	391019.70	586.35
10569	1510727.85	390998.84	586.26
10570	1510727.81	390970.95	586.27
10571	1510728.12	390943.10	586.06
10572	1510728.62	390922.19	586.06
10573	1510729.29	390894.14	586.22
10574	1510729.96	390870.08	586.34
10575	1510730.59	390845.09	586.35
10576	1510731.23	390820.66	586.33
10579	1510731.70	390796.76	586.35
10657	1510731.84	390771.37	586.29
10580	1510732.44	390746.59	586.34
10581	1510732.86	390722.22	586.35
10582	1510733.47	390697.79	586.36
10577	1510734.26	390669.63	586.36
10583	1510734.78	390648.02	586.48
10584	1510735.34	390623.21	586.45
10585	1510735.88	390598.11	586.39
10586	1510736.41	390570.23	586.28
10587	1510736.78	390545.88	586.28
10588	1510737.13	390521.31	586.29

Point Number	Northing	Easting	Elev. *
10589	1510737.77	390496.59	586.33
10590	1510738.07	390471.93	586.32
10591	1510738.75	390447.81	586.38
10592	1510739.14	390423.10	586.37
10658	1510739.57	390398.78	586.36
10593	1510739.60	390370.44	586.50
10594	1510739.28	390349.27	586.44
10595	1510740.93	390320.97	586.41
10596	1510741.25	390296.85	586.17
10597	1510741.95	390271.95	586.38
10598	1510742.82	390247.31	586.43
10599	1510743.15	390219.39	586.33
10600	1510743.73	390194.63	586.35
10601	1510743.91	390170.34	586.32
10602	1510744.48	390136.88	586.31
10603	1510744.68	390121.65	586.29
10604	1510745.38	390098.29	586.30
10605	1510745.58	390071.81	586.26
10606	1510746.16	390048.07	586.29
10607	1510746.44	390021.72	586.22
10608	1510746.82	389995.92	586.28
10609	1510747.66	389971.73	586.30
10610	1510748.57	389940.32	586.26
10613	1510748.94	389921.47	586.39
10614	1510748.12	389898.33	583.47
10615	1510748.47	389873.91	586.54
10616	1510750.50	389847.26	586.43
10617	1510752.06	389795.30	586.15
10618	1510751.35	389769.19	586.10
10619	1510751.77	389744.70	586.04
10620	1510752.18	389719.99	586.13
10621	1510752.65	389695.08	586.00
10622	1510753.07	389669.82	586.17

Point Number	Northing	Easting	Elev.*
10623	1510753.46	389644.82	586.05
10624	1510753.80	389620.21	586.06
10625	1510754.25	389595.14	586.21
10626	1510754.59	389571.22	586.19
10627	1510755.06	389546.35	586.20
10628	1510755.50	389521.39	586.15
10629	1510755.93	389496.48	586.12
10630	1510756.36	389471.48	586.12
10631	1510756.77	389446.90	586.15
10632	1510757.05	389421.57	586.20
10633	1510757.64	389397.04	586.32
10634	1510757.98	389371.86	586.37
10635	1510758.29	389347.12	586.34
10636	1510758.76	389322.80	586.09
10637	1510759.20	389300.27	586.15
10638	1510765.12	389289.27	586.20
10639	1510771.21	389289.44	586.18
10640	1510777.21	389289.69	586.27
10641	1510765.68	389265.14	585.73
10642	1510771.69	389265.24	586.06
10643	1510777.76	389265.55	585.88
10644	1510759.85	389244.90	586.23
10645	1510760.44	389220.33	586.18
10646	1510761.14	389195.45	586.37

* ELEVATION IS TOP OF SHEET PILE

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

STEEL SHEET PILE
WALL SURVEY
8/29/05 AND 9/14/05

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

SHEET REFERENCE NUMBER:
C-12
SHEET 16 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-12.DGN

Date of Survey 08/01/2005

Sta. Number	Point Number	Northing	Easting	Elev. *
21+15.6	10556	1510721.349	391310.575	586.390
21+8.7	10557	1510721.391	391303.695	586.150
20+76.6	10558	1510721.232	391271.596	586.230
20+51.9	10559	1510719.905	391246.850	586.250
20+26.9	10560	1510722.593	391221.889	586.280
19+99.2	10561	1510723.727	391194.228	586.140
19+74.7	10562	1510724.331	391169.730	586.370
19+50.6	10563	1510724.594	391145.636	586.140
19+26.3	10564	1510725.159	391121.337	586.280
19+1.7	10565	1510725.717	391096.665	586.270
18+77.1	10566	1510726.211	391072.156	586.040
18+52.6	10567	1510726.904	391047.607	586.060
18+25.4	10568	1510727.571	391019.723	586.380
18+3.8	10569	1510727.818	390998.865	586.320
17+76.0	10570	1510727.766	390971.010	586.320
17+48.1	10571	1510728.083	390943.094	586.070
17+27.2	10572	1510728.598	390922.240	586.100
16+99.1	10573	1510729.264	390894.168	586.260
16+75.0	10574	1510729.890	390870.092	586.390
16+50.2	10575	1510730.523	390845.205	586.390
16+25.7	10576	1510731.135	390820.714	586.390
16+1.6	10579	1510731.718	390796.713	586.350
15+76.2	10657	1510731.800	390771.303	586.330
15+51.9	10580	1510732.469	390746.588	586.350
15+27.1	10581	1510732.880	390722.199	586.360
15+2.7	10582	1510733.486	390697.800	586.370
14+74.6	10577	1510734.155	390669.702	586.430
14+52.9	10583	1510734.768	390648.017	586.470
14+28.1	10584	1510735.369	390623.181	586.470
14+3.0	10585	1510735.892	390598.110	586.400
13+75.1	10586	1510736.422	390570.227	586.280
13+50.8	10587	1510736.793	390545.895	586.290
13+26.2	10588	1510737.342	390521.343	586.300
13+1.5	10589	1510737.756	390496.612	586.340
12+76.8	10590	1510738.072	390471.960	586.330
12+52.7	10591	1510738.726	390447.809	586.380
12+28.0	10592	1510739.128	390423.108	586.360
12+3.6	10658	1510739.588	390398.760	586.390
11+75.3	10593	1510739.679	390370.442	586.520
11+54.2	10594	1510739.397	390349.296	586.470
11+25.8	10595	1510740.921	390320.962	586.410
11+1.7	10596	1510741.257	390296.879	586.190
10+76.8	10597	1510741.968	390271.993	586.400
10+52.2	10598	1510742.846	390247.346	586.450
10+24.2	10599	1510743.154	390219.336	586.340
9+99.5	10600	1510743.746	390194.645	586.360
9+75.2	10601	1510743.931	390170.393	586.340
9+41.7	10602	1510744.499	390136.936	586.320
9+26.5	10603	1510744.700	390121.703	586.330
9+3.1	10604	1510745.392	390098.303	586.310
8+76.7	10605	1510745.596	390071.867	586.300
8+52.9	10606	1510746.190	390048.092	586.330
8+26.5	10607	1510746.437	390021.744	586.240
8+0.8	10608	1510746.840	389998.016	586.290
7+76.5	10609	1510747.703	389971.768	586.310
7+45.1	10610	1510748.622	389940.341	586.280
7+26.1	10613	1510748.967	389921.376	586.460
7+3.1	10614	1510748.135	389898.289	583.530
6+78.6	10615	1510748.430	389873.866	586.610
6+52.0	10616	1510750.505	389847.205	586.480
6+00	10617	1510752.009	389795.280	586.170
5+73.9	10618	1510751.320	389769.176	586.120
5+79.4	10619	1510751.769	389744.688	586.080
5+24.7	10620	1510752.162	389719.974	586.170
4+99.8	10621	1510752.613	389695.042	586.040
4+74.5	10622	1510753.059	389669.810	586.190
4+49.6	10623	1510753.420	389644.823	586.080
4+24.9	10624	1510753.766	389620.186	586.090
3+99.9	10625	1510754.266	389595.099	586.250
3+75.9	10626	1510754.548	389571.178	586.190
3+51.0	10627	1510755.056	389546.320	586.210
3+26.1	10628	1510755.510	389521.370	586.180
3+1.2	10629	1510755.918	389496.470	586.140
2+76.1	10630	1510756.396	389471.434	586.160
2+51.6	10631	1510756.751	389446.882	586.170
2+26.2	10632	1510757.065	389421.544	586.220
2+1.7	10633	1510757.663	389397.016	586.340
1+76.6	10634	1510758.000	389371.868	586.350
1+51.8	10635	1510758.323	389347.115	586.350
1+27.5	10636	1510758.759	389322.840	586.110
1+5.0	10637	1510759.216	389300.281	586.160
0+93.9	10638	1510765.123	389289.293	586.210
0+93.9	10639	1510771.233	389289.523	586.180
0+93.9	10640	1510777.257	389289.755	586.290
0+69.7	10641	1510765.675	389265.167	585.750
0+69.7	10642	1510771.690	389265.265	586.070
0+69.7	10643	1510777.756	389265.528	585.900
0+49.6	10644	1510759.858	389244.940	586.260
0+25.0	10645	1510760.424	389220.359	586.200
0+0.1	10646	1510761.047	389195.400	586.450

Date of Survey 08/16/2005

Northing	Easting	Elev. *
1510721.33	391310.59	586.40
1510721.35	391303.70	586.16
1510721.21	391271.59	586.24
1510719.90	391246.72	586.27
1510722.58	391221.87	586.28
1510723.74	391194.19	586.15
1510724.34	391169.70	586.37
1510724.60	391145.61	586.14
1510725.17	391121.29	586.28
1510725.73	391096.66	586.27
1510726.23	391072.15	586.03
1510726.91	391047.56	586.05
1510727.59	391019.70	586.37
1510727.85	390998.84	586.30
1510727.78	390970.97	586.30
1510728.10	390943.07	586.09
1510728.62	390922.18	586.09
1510729.29	390894.12	586.26
1510729.95	390870.04	586.38
1510730.57	390845.16	586.39
1510731.19	390820.65	586.35
1510731.69	390796.75	586.31
1510731.83	390771.37	586.27
1510732.43	390746.61	586.31
1510732.85	390722.23	586.33
1510733.46	390697.80	586.34
1510734.22	390669.64	586.40
1510734.75	390648.03	586.44
1510735.34	390623.18	586.43
1510735.87	390598.12	586.37
1510736.40	390570.20	586.25
1510736.75	390545.87	586.26
1510737.32	390521.31	586.26
1510737.76	390496.58	586.31
1510738.06	390471.93	586.30
1510738.72	390447.80	586.34
1510739.14	390423.09	586.33
1510739.56	390398.75	586.33
1510739.59	390370.40	586.49
1510739.30	390349.25	586.42
1510740.94	390320.94	586.38
1510741.25	390296.80	586.15
1510741.98	390271.93	586.36
1510742.83	390247.31	586.40
1510743.16	390219.33	586.29
1510743.77	390194.60	586.31
1510743.95	390170.31	586.28
1510744.50	390136.89	586.27
1510744.70	390121.63	586.27
1510745.40	390098.28	586.29
1510745.59	390071.83	586.25
1510746.17	390048.05	586.27
1510746.45	390021.74	586.19
1510746.86	389995.96	586.22
1510747.69	389971.71	586.26
1510748.58	389940.31	586.22
1510748.97	389921.37	586.35
1510748.12	389880.31	583.46
1510748.45	389873.90	586.52
1510750.53	389847.20	586.40
1510752.07	389795.31	586.14
1510751.33	389769.22	586.05
1510751.77	389744.73	586.03
1510752.19	389720.00	586.10
1510752.61	389695.08	585.97
1510753.08	389669.83	586.12
1510753.44	389644.85	586.03
1510753.77	389620.25	586.04
1510754.25	389595.13	586.20
1510754.58	389571.19	586.18
1510755.07	389546.35	586.18
1510755.50	389521.39	586.14
1510755.96	389496.47	586.10
1510756.38	389471.48	586.13
1510756.74	389446.90	586.14
1510757.06	389421.53	586.20
1510757.66	389397.02	586.31
1510757.99	389371.87	586.33
1510758.32	389347.11	586.32
1510758.76	389322.83	586.09
1510759.20	389300.26	586.13
1510765.10	389289.28	586.18
1510771.21	389289.46	586.17
1510777.23	389289.70	586.27
1510765.67	389265.13	585.70
1510771.68	389265.24	586.02
1510777.75	389265.54	585.85
1510759.86	389244.91	586.19
1510760.44	389220.33	586.15
1510761.09	389195.46	586.33

Date of Survey 08/29/2005

Northing	Easting	Elev. *
1510721.36	391310.57	586.40
1510721.28	391303.72	586.15
1510721.22	391271.59	586.24
1510719.91	391246.72	586.27
1510722.61	391221.89	586.28
1510723.74	391194.21	586.15
1510724.35	391169.69	586.37
1510724.61	391145.62	586.13
1510725.16	391121.29	586.27
1510725.73	391096.66	586.27
1510726.25	391072.14	586.03
1510726.93	391047.62	586.05
1510727.59	391019.71	586.37
1510727.84	390998.83	586.29
1510727.80	390970.95	586.29
1510728.08	390943.04	586.08
1510728.59	390922.17	586.08
1510729.29	390894.14	586.24
1510729.94	390870.04	586.35
1510730.54	390845.18	586.35
1510731.18	390820.64	586.32
1510731.69	390796.71	586.33
1510731.81	390771.34	586.27
1510732.43	390746.61	586.34
1510732.83	390722.20	586.34
1510733.43	390697.76	586.34
1510734.22	390669.61	586.36
1510734.74	390648.01	586.46
1510735.31	390623.14	586.45
1510735.86	390598.08	586.37
1510736.39	390570.21	586.26
1510736.77	390545.88	586.28
1510737.34	390521.30	586.28
1510737.78	390496.56	586.33
1510738.07	390471.89	586.32
1510738.72	390447.76	586.36
1510739.14	390423.08	586.35
1510739.58	390398.74	586.34
1510739.60	390370.38	586.49
1510739.29	390349.24	586.44
1510740.95	390320.90	586.38
1510741.27	390296.78	586.16
1510742.03	390271.89	586.37
1510742.87	390247.25	586.41
1510743.19	390219.29	586.30
1510743.82	390194.55	586.32
1510743.98	390170.27	586.30
1510744.57	390136.83	586.28
1510744.76	390121.61	586.26
1510745.45	390098.24	586.30
1510745.68	390071.77	586.26
1510746.30	390047.98	586.28
1510746.55	390021.66	586.19
1510747.00	389995.92	586.22
1510747.79	389971.70	586.27
1510748.68	389940.24	586.20
1510748.92	389921.40	586.36
1510747.95	389898.30	583.43
1510748.30	389873.92	586.51
1510750.32	389847.25	586.40
1510751.94	389795.26	586.11
1510751.21	389769.17	586.04
1510751.67	389744.68	586.01
1510752.05	389719.98	586.11
1510752.50	389695.05	585.97
1510753.04	389669.82	586.14
1510753.35	389644.79	586.02
1510753.74	389620.15	586.05
1510754.25	389595.10	586.20
1510754.54	389571.19	586.15
1510755.03	389546.32	586.18
1510755.45	389521.35	586.15
1510755.92	389496.44	586.10
1510756.36	389471.44	586.13
1510756.74	389446.88	586.14
1510757.05	389421.53	586.20
1510757.66	389396.98	586.31
1510758.02	389371.87	586.33
1510758.35	389347.07	586.33
1510758.82	389322.80	586.09
1510759.21	389300.20	586.14
1510765.12	389289.26	586.18
1510771.22	389289.45	586.16
1510765.68	389265.14	585.71
1510771.69	389265.23	586.04
1510777.75	389265.54	585.87
1510759.89	389244.92	586.21
1510760.44	389220.33	586.15
1510761.13	389195.49	586.35

Date of Survey 09/14/2005

Northing	Easting	Elev. *
1510721.34	391310.57	586.39
1510721.36	391303.70	586.15
1510721.21	391271.56	586.24
1510719.89	391246.71	586.25
1510722.59	391221.89	586.27
1510723.75	391194.21	586.13
1510724.34	391169.70	586.36
1510724.62	391145.62	586.12
1510725.18	391121.31	586.26
1510725.74	391096.66	586.24
1510726.24	391072.17	586.00
1510726.92	391047.60	586.03
1510727.59	391019.70	586.35
1510727.85	390998.84	586.26
1510727.81	390970.95	586.27
1510728.12	390943.10	586.06
1510728.62	390922.19	586.06
1510729.29	390894.14	586.22
1510729.96	390870.08	586.34
1510730.59	390845.09	586.35
1510731.23	390820.66	586.33
1510731.70	390796.76	586.35
1510731.84	390771.37	586.29
1510732.44	390746.59	586.34
1510732.86	390722.22	586.35
1510733.47	390697.79	586.36
1510734.26	390669.63	586.36
1510734.78	390648.02	586.48
1510735.34	390623.21	586.45
1510735.88	390598.11	586.39
1510736.41	390570.23	586.28
1510736.78	390545.88	586.28
1510737.13	390521.31	586.29
1510737.77	390496.59	586.33
1510738.07	390471.93	586.32
1510738.75	390447.81	586.38
1510739.14	390423.10	586.37
1510739.57	390398.78	586.36
1510739.60	390370.44	586.50
1510739.28	390349.27	586.44
1510740.93	390320.97	586.41
1510741.25	390296.85	586.17
1510741.95	390271.95	586.38
1510742.82	390247.31	586.43
1510743.15	390219.39	586.33
1510743.73	390194.63	586.35
1510743.91	390170.34	586.32
1510744.48	390136.88	586.31
1510744.68	390121.65	586.29
1510745.38	390098.29	586.30
1510745.58	390071.81	586.26
1510746.16	390048.07	586.29
1510746.44	390021.72	586.22
1510746.82	389995.92	586.28
1510747.66	389971.73	586.30
1510748.57	389940.32	586.26
1510748.94	389921.47	586.39
1510748.12	389898.33	583.47
1510748.47	389873.91	586.54
1510750.50	389847.26	586.43
1510752.06	389795.30	586.15
1510751.35	389769.19	586.10
1510751.77	389744.70	586.04
1510752.18	389719.99	586.13
1510752.65	389695.08	586.00
1510753.07	389669.82	586.17
1510753.46	389644.82	586.05
1510753.80	389620.21	586.06
1510754.25	389595.14	586.21
1510754.59	389571.22	586.19
1510755.06	389546.35	586.20
1510755.50	389521.39	586.15
1510755.93	389496.48	586.12
1510756.36	389471.48	586.12
1510756.77	389446.90	586.15
1510757.05	389421.57	586.20
1510757.64	389397.04	586.32
1510757.98	389371.86	586.37
1510758.29	389347.12	586.34
1510758.76	389322.80	586.09
1510759.20	389300.27	586.15
1510765.12	389289.27	586.20
1510771.21	389289.44	586.18
1510777.21	389289.69	586.27
1510765.68	389265.14	585.73
1510771.69	389265.24	586.06
1510777.76	389265.55	585.88
1510759.85	389244.90	586.23
1510760.44	389220.33	586.18
1510761.14	389195.45	586.37

* ELEVATION IS TOP OF SHEET PILE

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD DATE
CHIEF CON. OPS. BRANCH

SHEET REFERENCE NUMBER:
C-13
SHEET 17 OF 21

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
DRAWN BY: MVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

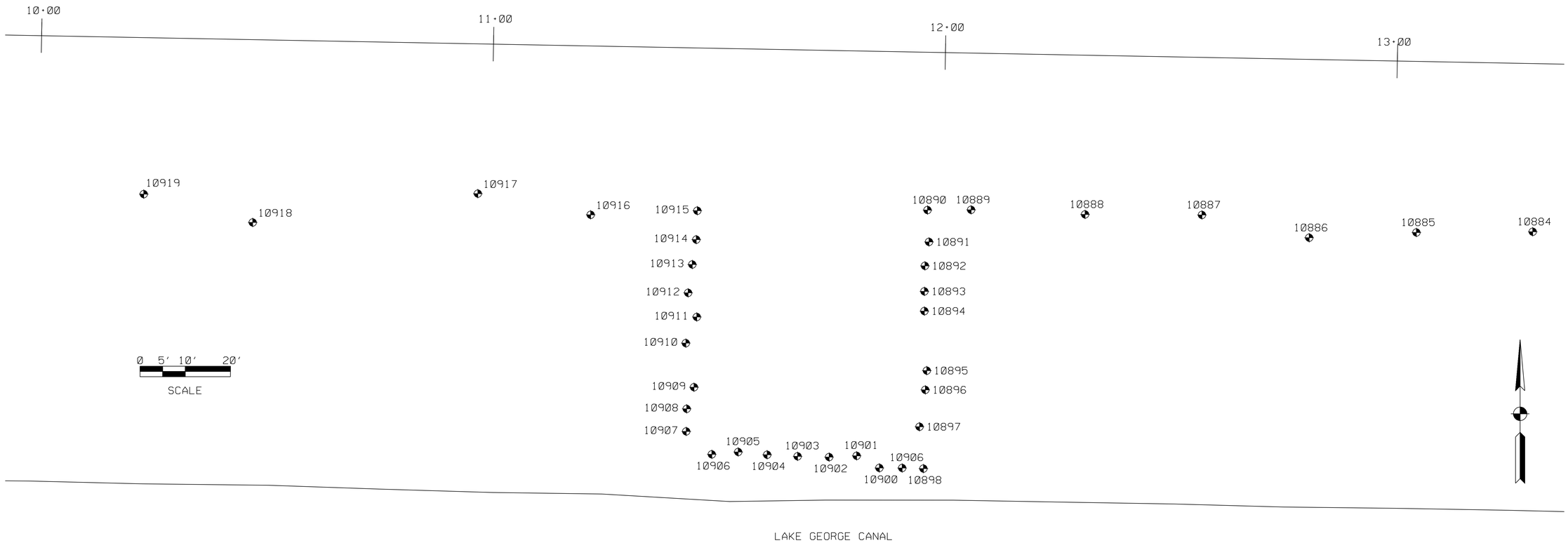
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

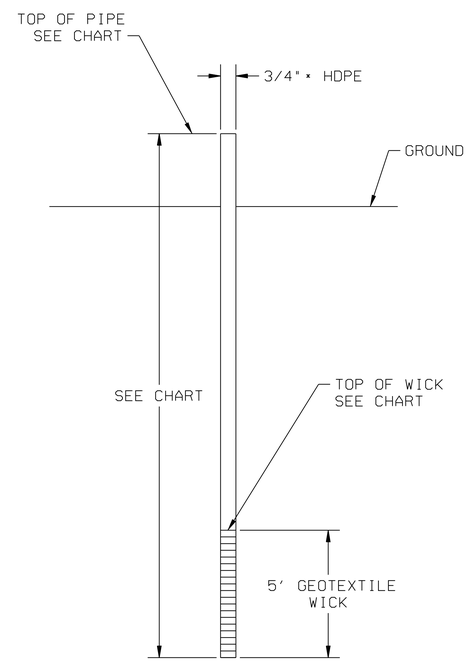
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

STEEL SHEET PILE WALL SURVEY
DATA SUMMARY 08/01/05,
08/16/05,08/29/05, AND 09/14/05

PLOT DATE: 4/6/2006
FILENAME: C-13.DGN



NUMBER	NORTHING	EASTING	ELEVATION	RAW DESC	PIPE LENGTH	WICK LENGTH	TOP OF WICK	BOTTOM OF WICK
10884	1510799.01	390526.92	587.06	WALL WELL #1	25	5.00	567.06	562.06
10885	1510798.84	390501.19	587.01	WALL WELL #2	25	5.00	567.01	562.01
10886	1510797.69	390477.47	587.35	WALL WELL #3	25	5.00	567.35	562.35
10887	1510802.73	390453.74	587.36	WALL WELL #4	25	5.00	567.36	562.36
10888	1510802.84	390427.88	587.33	WALL WELL #5	25	5.00	567.33	562.33
10889	1510803.86	390402.67	587.13	WALL WELL #6	25	5.00	567.13	562.13
10890	1510803.81	390393.03	587.24	WALL WELL #7	26	5.00	566.24	561.24
10891	1510796.76	390393.36	587.21	WALL WELL #8	24	5.00	568.21	563.21
10892	1510791.46	390392.46	587.15	WALL WELL #9	26	5.00	566.15	561.15
10893	1510785.81	390392.34	587.28	WALL WELL #10	24	5.00	568.28	563.28
10894	1510781.44	390392.34	587.23	WALL WELL #11	26	5.00	566.23	561.23
10895	1510768.27	390392.86	587.25	WALL WELL #12	21	5.00	571.25	571.25
10896	1510764.00	390392.54	587.26	WALL WELL #13	26	5.00	566.26	561.26
10897	1510755.84	390391.26	586.73	WALL WELL #14	25	5.00	566.73	561.73
10898	1510746.57	390392.13	586.34	WALL WELL #15	26	5.00	565.34	560.34
10899	1510746.70	390387.42	586.16	WALL WELL #16	26	5.00	565.16	560.16
10900	1510746.72	390382.37	586.12	WALL WELL #17	26	5.00	565.12	560.12
10901	1510749.40	390377.35	585.97	WALL WELL #18	26	5.00	564.97	559.97
10902	1510749.12	390371.26	587.47	WALL WELL #19	26	5.00	566.47	561.47
10903	1510749.28	390364.28	586.73	WALL WELL #20	25	5.00	566.73	561.73
10904	1510749.64	390357.55	585.64	WALL WELL #21	25	5.00	565.64	560.64
10905	1510750.25	390351.14	585.27	WALL WELL #22	26	5.00	564.27	559.27
10906	1510749.73	390345.31	586.19	WALL WELL #23	26	5.00	565.19	560.19
10907	1510754.80	390339.64	585.99	WALL WELL #24	26	5.00	564.99	559.99
10908	1510759.80	390339.74	585.75	WALL WELL #25	26	5.00	564.75	559.75
10909	1510764.59	390341.37	585.92	WALL WELL #26	26	5.00	564.92	559.92
10910	1510774.34	390339.56	586.43	WALL WELL #27	25	5.00	566.43	561.43
10911	1510780.14	390341.98	589.87	WALL WELL #28	18	5.00	576.87	571.87
10912	1510785.48	390340.07	588.44	WALL WELL #29	25	5.00	568.44	563.44
10913	1510791.76	390340.98	588.34	WALL WELL #30	25	5.00	568.34	563.34
10914	1510797.27	390341.86	587.77	WALL WELL #31	26	5.00	566.77	561.77
10915	1510803.67	390342.10	587.60	WALL WELL #32	25	5.00	567.6	562.6
10916	1510802.76	390318.50	587.86	WALL WELL #33	26	5.00	566.86	561.86
10917	1510807.44	390293.54	587.78	WALL WELL #34	24	5.00	568.78	563.78
10918	1510801.06	390243.73	587.91	WALL WELL #35	26	5.00	566.91	561.91
10919	1510807.34	390219.63	587.61	WALL WELL #36	25	5.00	567.61	562.61



TYPICAL DEWATERING WELL POINT DETAIL
N.T.S.

RECORD DRAWING
WORK "AS-BUILT"
SHAMEL ABOU-EL-SEOUD 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN | DATE: 28 SEPT 2004
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CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
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U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

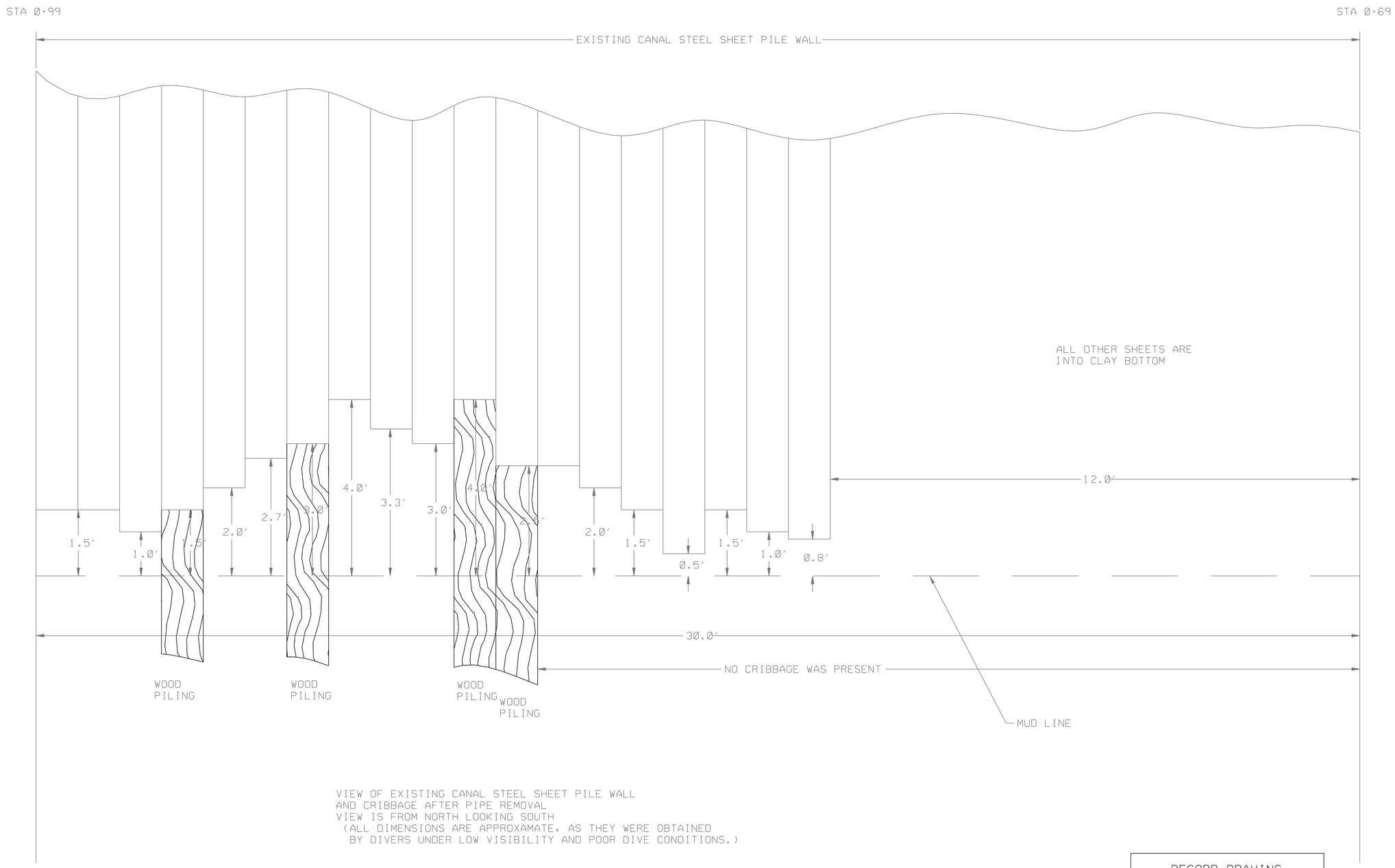
ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

DEWATERING WELLS FOR
TIE ROD/ANCHOR
WALL INVESTIGATION

SHEET REFERENCE NUMBER:
C-14
SHEET 18 OF 21

PLOT DATE: 4/5/2006
FILENAME: C-14.DGN



VIEW OF EXISTING CANAL STEEL SHEET PILE WALL
AND CRIBBAGE AFTER PIPE REMOVAL
VIEW IS FROM NORTH LOOKING SOUTH
(ALL DIMENSIONS ARE APPROXAMATE, AS THEY WERE OBTAINED
BY DIVERS UNDER LOW VISIBILITY AND POOR DIVE CONDITIONS.)

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS
OF ENGINEERS
CHICAGO DISTRICT

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DESIGNED BY: MVN
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SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-829-7500

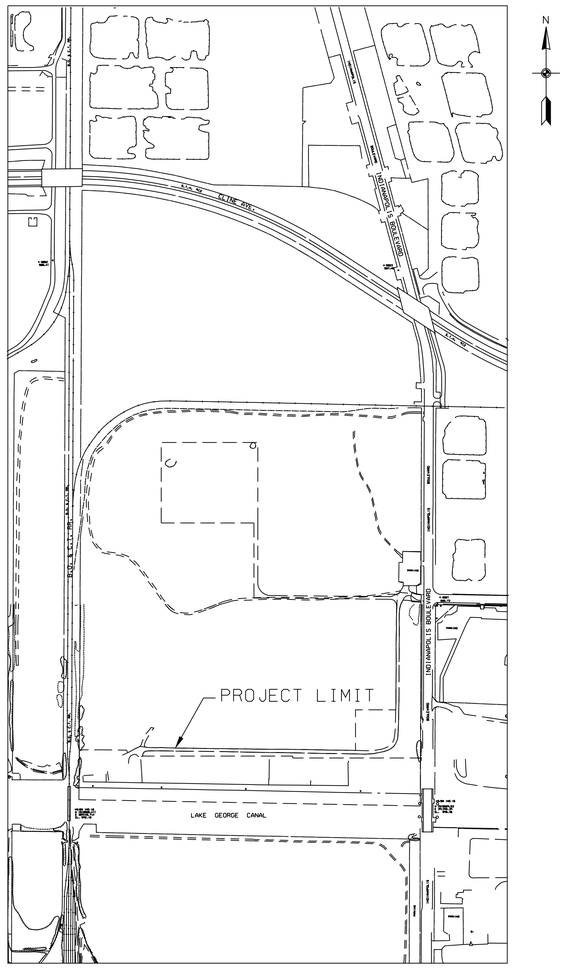
INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION
SUBMERGED TIMBER CRIBBAGE
AFTER PIPE REMOVAL AT
DREDGE AREA 1

SHEET
REFERENCE
NUMBER:
C-15

SHEET 19 OF 21

PLOT DATE: 4/6/2006
FILENAME: C-15.DGN

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION



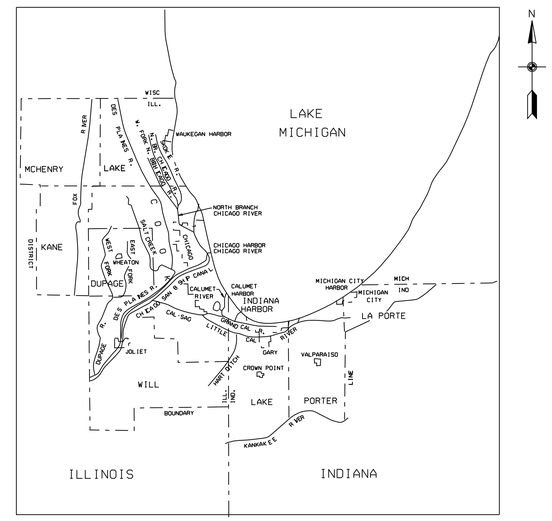
SITE AREA MAP

400 200 0 400 800

1 INCH = 400 FEET

LOCALITY MAP

(NOT TO SCALE)



VICINITY MAP

20 10 0 20 40

SCALE OF MILES

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD
CHIEF CON. OPS. BRANCH

DATE

SHEET REFERENCE NUMBER:

G-01

SHEET 1 OF 21

US ARMY CORPS OF ENGINEERS
CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED

DESIGNED BY: MVN
DATE: 28 SEPT 2004
DRAWN BY: MVN
SCALE: AS SHOWN
CHECKED BY: JT
CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY:
DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

SITE AREA
LOCALITY AND VICINITY MAP

PLOT DATE: $DATE$
FILENAME: G01.DGN

SHEET NO.	SHEET REFERENCE	TITLE
1	G-01	SITE AREA, LOCALITY, AND VICINITY MAPS
2	G-02	INDEX SHEET, STANDARD SYMBOLS, AND NOTES
3	C-01	WORK LIMITS, STAGING, STORAGE & ACCESS
4	C-01A	WORK LIMITS, STAGING, STORAGE & ACCESS
5	C-01B	TABLE OF WORK LIMITS AND SURVEY POINTS
6	C-02	EXISTING CONDITION SURVEY STA. 0+00 TO 4+50
7	C-03	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 0+00 TO 4+50
8	C-04	EXISTING CONDITION SURVEY STA. 4+50 TO 10+50
9	C-05	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 4+50 TO 10+50
10	C-06	EXISTING CONDITION SURVEY STA. 10+50 TO 16+50
11	C-07	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 10+50 TO 16+50
12	C-08	EXISTING CONDITION SURVEY STA. 16+50 TO 21+00
13	C-09	OBSTRUCTION REMOVAL AND DEMOLITION AS-BUILT STA. 16+50 TO 21+00
14	C-10	EXISTING CANAL STEEL SHEETPILE BULKHEAD
15	C-11	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY 08/01/05 AND 08/16/05
16	C-12	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY 08/28/05 AND 09/14/05
17	C-13	OBSTRUCTION REMOVAL AND SITE DEMOLITION STEEL SHEETPILE WALL SURVEY DATA SUMMARY 08/01/05, 08/16/05, 08/29/05, AND 09/14/05
18	C-14	OBSTRUCTION REMOVAL AND SITE DEMOLITION WELLS FOR TIE ROD/ANCHOR WALL INVESTIGATION
19	C-15	SUBMERGED TIMBER CRIBBING AFTER PIPE REMOVAL AT DREDGE AREA 1
20	S-01	OBSTUCTION REMOVAL CHANNEL PROFILE
21	S-01	OBSTUCTION REMOVAL CHANNEL PROFILE

STANDARD SYMBOLS

- BUILDING
- ROAD - PAVED
- ROAD - UNPAVED
- TREE
- TREE LINE
- BRUSHLINE
- PILE (PILE P)
- UNDER CONSTRUCTION (U/C)
- OPEN STORAGE (O.S.)
- CONCRETE SLAB (CONC)
- STREAM
- GUARD RAIL
- FENCE LINE
- WALL (W)
- BILLBOARD (BB)
- SIGN (S)
- TRAFFIC SIGNAL
- MANHOLE
- POLE
- LIGHT POLE
- EXISTING H-PILE
- RAILROAD LINE
- WORK LIMITS
- GROUND/GRADE
- FIRE HYDRANT
- FLAG POLE (FP)
- POST (P)
- DROP INLET
- CATCH BASIN
- CULVERT
- LOCATED OBJECT
- INDEX CONTOUR (750)
- INTERMEDIATE CONTOUR
- APPROXIMATE CONTOUR
- DEPRESSION CONTOUR
- SPOT ELEVATION (X 732.3)
- EDGE OF WATER
- MONUMENT
- ELECTRIC MANHOLE
- GRATED MANHOLE (G.M.H.)
- GRATE DRAIN (G.D.)
- WATER VALVE (W.V.)
- SHRUB
- GRASS/TURF
- PHOTO AT THIS LOCATION (8)
- BORING LOGS
- GATE VALVE (GV)
- WELL (W)
- MONITORING WELL (MW)
- VALVE (V)
- PUMP (P)
- ELECTRIC BOX
- POWER POLE
- *HYDRANT*
- *WATER VALVE* (WV)
- MANHOLE
- PIPE
- 2' DIA CONCRETE PAD (P)
- BOLLARD - CONCRETE POST
- GUY WIRE
- SET IRON ROD
- CONTROL POINT
- PIPE LINE
- PIPE LINE CONTINUATION UNDER CANAL
- FENCE AROUND DEBRIS AREA
- OVERHEAD POWERLINES
- BASELINE
- STRUCTURE, PIPE, OR OTHER FEATURE TO BE DEMOLISHED AND REMOVED
- REMOVAL-"FENDER SYSTEM"

GENERAL NOTES

1. CONTRACTOR SHALL NOT DISPOSE OF ANY DEBRIS MATERIAL OFF SITE.
2. LAND EXCAVATIONS SHALL BE LIMITED TO REMOVAL OF IDENTIFIED OBSTRUCTIONS SHOWN ON THE PLAN.
3. CONTRACTOR SHALL CONDUCT A SURVEY TO IDENTIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE COR SHALL DECIDE IF UNIDENTIFIED UTILITIES MUST BE REMOVED.
4. PHOTOS INDICATED BY A NUMBER INSIDE A CIRCLE ON THE DRAWINGS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
5. DREDGING SHALL BE LIMITED TO THE AREA INSIDE THE SHEET PILE BOX AND ONLY AS NECESSARY TO CUT, CAP AND REMOVE THE PIPES.
6. THE EXISTING CRUSH STONE ROADWAY, DEBRIS AREA AND ACCESS SHALL BE USED OF OTHER CONTRACTORS WORKING WITHIN THE ENTIRE SITE. THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS REGARDING USAGE OF ROADWAY AND DEBRIS AREA AND TRAFFIC.

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006
SHAMEL ABOU-EL-SEOUD — DATE
CHIEF CON. OPS. BRANCH

US ARMY CORPS OF ENGINEERS CHICAGO DISTRICT

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: KWN | DATE: 28 SEPT 2004
DRAWN BY: WVN | SCALE: AS SHOWN
CHECKED BY: JT | CONTRACT NUMBER: W912P6-04-C-0006
SUBMITTED BY: | DATE:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

INDEX SHEET, STANDARD SYMBOLS AND NOTES

SHEET REFERENCE NUMBER:
G-02

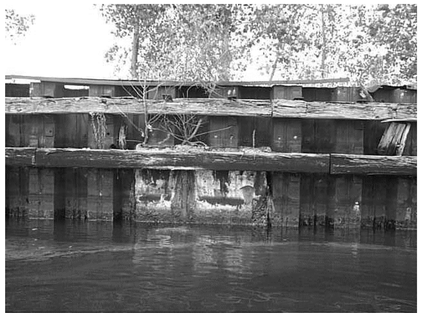
PLOT DATE: 4/5/2006
FILENAME: G-02.DGN

PIPE REMOVAL AREA 1

PIPE REMOVAL AREA 1

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

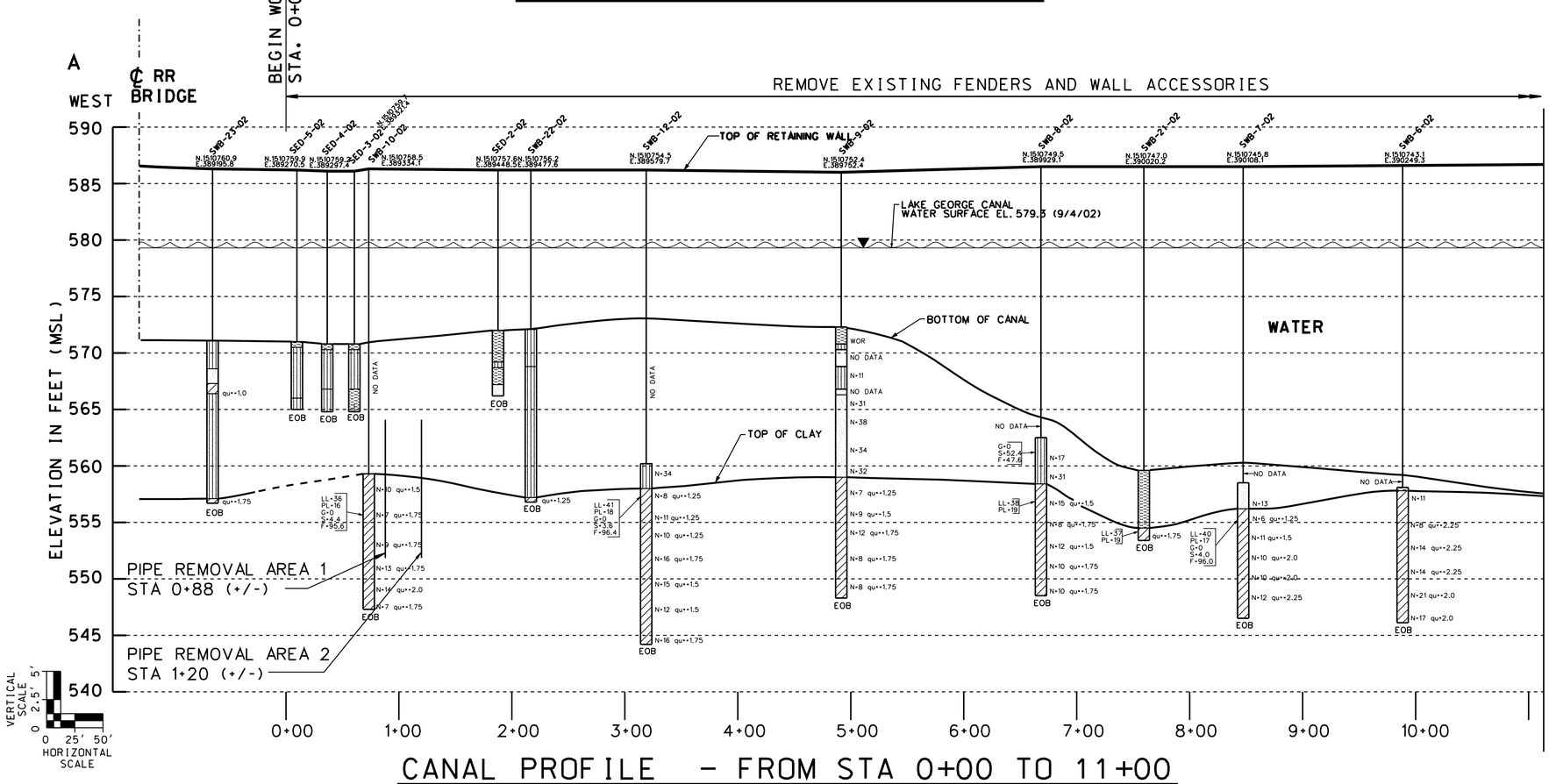


EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

REPRESENTATIVE PHOTOGRAPHS



CANAL PROFILE - FROM STA 0+00 TO 11+00

(2'-0" FROM FACE OF EXISTING STEEL SHEETPILE WALL)

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD — 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD, CHIEF, CON. OPS. BRANCH — DATE

"BEFORE DEMOLITION/ REMOVAL WORK FOR INFORMATION ONLY"

~~GENERAL NOTES:~~

1. REPRESENTATIVE PHOTO ARE PROVIDED TO GENERALLY DEPICT THE NATURE OF REMOVAL WORK REQUIRED ON THE SHEET PILE WALL.
2. REMOVE ALL EXISTING TIMBER FENDERS AND WALL ACCESSORIES THAT PROJECT MORE THAN 3 INCHES INTO THE CANAL BEYOND THE FACE OF THE EXISTING STEEL SHEET PILE WALL BETWEEN THE LIMITS OF WORK (STA. 0+00 TO STA. 20+50)
3. REMOVAL OF TIMBER FENDER CONNECTION ASSEMBLIES SHALL INCLUDE OUTSTANDING LEGS OR FLANGES OF STEEL SHAPES AND BUILTUP MEMBERS. DEMOLITION MATERIAL SHALL BE COLLECTED AND PROPERLY DISPOSED OF ON SITE. EXISTING CONNECTION BOLTS THROUGH EXISTING SHEET PILES SHALL BE BURNED OFF FLUSH TO MINIMIZE POTENTIAL LEAKAGE OF CONTAMINATED MATERIALS IN THE CANAL.
4. PIPELINES AT LOCATIONS INDICATED SHALL BE SEALED AND REMOVED. A CONCEPTUAL PLAN HAS BEEN DEVELOPED FOR THIS WORK AS SHOWN ON DRAWING S-03. HOWEVER, THE CONTRACTOR MAY CHOOSE ALTERNATE MEANS AND METHODS TO PERFORM THIS WORK SUBJECT TO DEMONSTRATED CONSISTANCY WITH ENVIRONMENTAL CONTAINMENT CONSIDERATIONS AND APPROVAL OF THE CONTRACTING OFFICIER.
5. THE MINIMUM LENGTH OF PIPE TO BE REMOVED IS TEN (10) FEET AND THE CUT SHALL BE MADE WITHIN A ONE (1) FOOTPROJECTION FROM THE FACE OF EXISTING WALL.
6. THE CONTRACTOR SHALL DEVELOP A WORKPLAN THAT DOES NOT PLACE A SURCHARGE LOAD ON RETAINED EARTH GREATER THAN 300 POUNDS PER SQUARE FOOT WITHIN 30 FEET OF THE SHEETPILE WALL.

GRAPHIC LOG SYMBOLS

CLEAN SAND (SP,SW) · SILTY SAND (SM, SP-SM, SW-SM) · SILTY GRAVEL (GW-GM) · SILT (ML) · SILTY CLAY (CL, CH) · ORGANIC SILT (OL) · CLAYEY SAND (SC, SP-SC, SW-SC)

BORING LOG LOCATIONS SHOWN ON SHEET C-03, C-05, C-07 AND C-09

US Army Corps of Engineers Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: WAH · DATE: 28 SEPTEMBER 2004
DRAWN BY: JT · SCALE: AS SHOWN
CHECKED BY: WKM · DRAWING CODE:
REVIEWED BY: · SOLICITATION NUMBER: W912P6-04-C-0006

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY
OBSTRUCTION REMOVAL
AND SITE DEMOLITION

OBSTRUCTION REMOVAL
CHANNEL PROFILE

SHEET REFERENCE NUMBER:
S-01
SHEET 20 OF 21

PLOT DATE: 4/5/2006
FILENAME: B:\USACE\9326\CH\DWG\SECTION.DGN

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

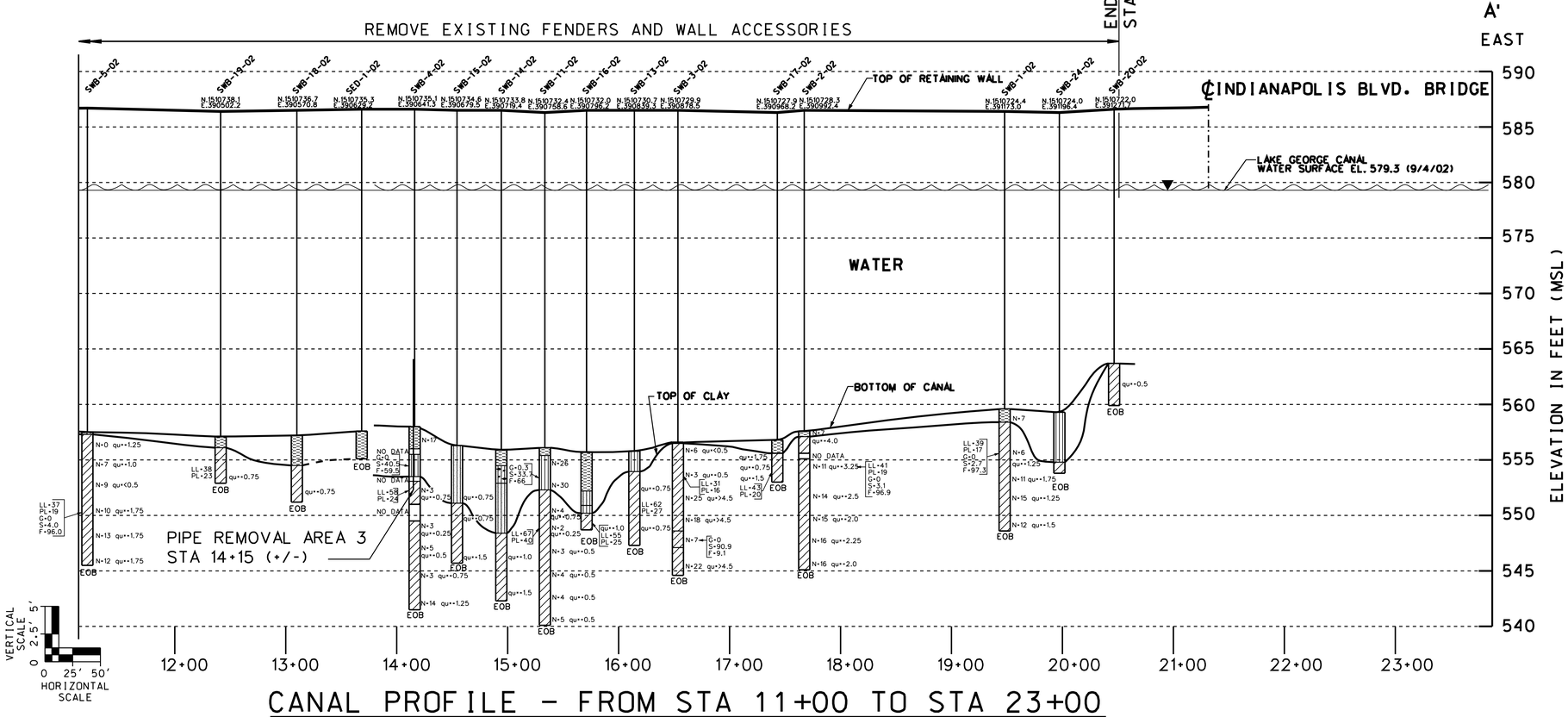
EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

EXISTING FENDERS TO BE REMOVED

REPRESENTATIVE PHOTOGRAPHS

INDIANAPOLIS BLVD. BRIDGE



CANAL PROFILE - FROM STA 11+00 TO STA 23+00

(2'-0" FROM FACE OF EXISTING STEEL SHEETPILE WALL)

RECORD DRAWING

WORK "AS-BUILT"

SHAMEL ABOU-EL-SEOUD 24 MARCH 2006

SHAMEL ABOU-EL-SEOUD
CHIEF, CON. OPS. BRANCH

DATE

"BEFORE DEMOLITION/
REMOVAL WORK
FOR INFORMATION ONLY"

GRAPHIC LOG SYMBOLS

- CLEAN SAND (SP, SW)
- SILTY SAND (SM, SP-SM, SW-SM)
- SILTY GRAVEL (GW-GM)
- SILT (ML)
- SILTY CLAY (CL, CH)
- ORGANIC SILT (OL)
- CLAYEY SAND (SC, SP-SC, SW-SC)

BORING LOG LOCATIONS
SHOWN ON SHEET C-03, C-05, C-07 AND C-09

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: SAL	DATE: 28 SEPTEMBER 2004
DRAWN BY: WRM	SCALE: AS SHOWN
CHECKED BY: SAL	DRAWING CODE: 9326.C1\SECTION.DGN
REVIEWED BY: JBB	SOLICITATION NUMBER: W912P6-04-C-0006

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
CINCINNATI, OHIO
513-825-7500

INDIANA HARBOR CANAL CONFINED DISPOSAL FACILITY OBSTRUCTION REMOVAL AND SITE DEMOLITION

OBSTRUCTION REMOVAL CHANNEL PROFILE

SHEET REFERENCE NUMBER:

S-02

SHEET 21 OF 21

PLOT DATE: 4/5/2006
FILENAME: S-02.DGN

Specifications

CONTRACT NO: W912P6-04-C-0006

US Army Corps of Engineers®

CHICAGO DISTRICT
LEADERS IN CUSTOMER CARE

SPECIFICATIONS FOR

INDIANA HARBOR AND CANAL (IHC) CONFINED DISPOSAL FACILITY (CDF) OBSTRUCTION REMOVAL EAST CHICAGO, INDIANA

CONSTRUCTION DOCUMENTS

SEPTEMBER 2004

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02220	DEMOLITION
02231	CLEARING
02250	SHORING SYSTEM
02325	DREDGING
02464	METAL SHEET PILING
	DIVISIONS 03-04 – NOT USED
DIVISION 05	METALS
05055	METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS
05502	METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS
	DIVISIONS 06-16 – NOT USED

SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. W912P6-04-R-0005-0001	2. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED *(RFP)*	3. DATE ISSUED 21-Jun-2004	PAGE OF PAGES 1 OF 44

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.
W912P6-04-C-0006	W81G66-4068-2087	

7. ISSUED BY CODE W912P6	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE
U. S. ARMY ENGINEER DISTRICT, CHICAGO 111 CANAL STREET CHICAGO IL 60606	**See Item 7**
TEL:312.846.5371 FAX:	TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*
	DAVID M DILKS	312.846.5373

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS*(Title, identifying no., date):*

PROJECT TITLE: INDIANA HARBOR AND CANAL (IHC), CONFINED DISPOSAL FACILITY (CDF), OBSTRUCTION REMOVAL PROJECT IN EAST CHICAGO, INDIANA.

Description: The Contractor will be responsible for providing all necessary facilities, plants, labor, transportation, materials, and equipment to perform the following construction project: the Obstruction Removal Project will be conducted along the south border of the Confined Disposal Facility (CDF) site. Continued on page 3.

Small Business Size Standards: The North American Industry Classification System (NAICS) Code for this Project is 237990. The size standard is $28.5 Million.

This Project is UNRESTRICTED to Business Size.

General Decision Number IN030001, dated 06/13/2003 is applicable to this project.

The estimated magnitude of cost for construction for this project is between $500,000.00 and $1,000,000.00.

BIDS RECEIVED BY FACSIMILE OR TELETYPE WILL NOT BE CONSIDERED.

11. The Contractor shall begin performance within 10 calendar days and complete it within 230 calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* Section 00700 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 5 copies to perform the work required are due at the place specified in Item 8 by 04:30 PM *(hour)* local time 22 Jul 2004 *(date).* If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [X] is, [ ] is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 120 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER ***(Must be fully completed by offeror)***

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*	15. TELEPHONE NO. *(Include area code)*
ENVIRONMENTAL QUALITY MANAGEMENT INC 1800 CARILLON BOULEVARD CINCINNATI OH 45240	(513)825-7500
	16. REMITTANCE ADDRESS *(Include only if different than Item 14)* **See Item 14**
CODE 0SME6 / FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*	20B. SIGNATURE	20C. OFFER DATE

AWARD ***(To be completed by Government)***

21. ITEMS ACCEPTED:

SEE SCHEDULE

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
$1,541,418.05	**See Schedule**

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	**ITEM** Block 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)

26. ADMINISTERED BY	CODE H6L1CSO	27. PAYMENT WILL BE MADE BY:	CODE T0B0200
CALUMET AREA OFFICE 906 N. GRIFFITH BOULEVARD GRIFFITH IN 46319		USACE FINANCE CENTER (UFC) 5722 INTEGRITY DRIVE MILLINGTON TN 38054-5005	

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _ _ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☒ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

REF: SEE next page.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*		31A. NAME OF CONTRACTING OFFICER *(Type or print)* REGINA G BLAIR / ADDED BY SUMI TEL: 312.846.5371 EMAIL: regina.g.blair@usace.army.mil
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY
		31C. AWARD DATE 28-Sep-2004

Section 00010 - Solicitation Contract Form

DESCRIPTION OF PROJECT

Continued from Block 10 of Standard Form (SF) 1442. The work limits of this project extend from the east fence along Indianapolis Blvd, to the west fence along the CSX Railroad spur, to the access road 260 feet north of the Lake George Branch of the canal, and into the canal, 75 feet south. The Contractor will be responsible for clearing the area free of all brush, trees, and surface obstructions, with the exception of the ARCO Oil Recovery System and the trees and brush adjacent to the system components. Also, ten-foot sections of twelve pipes crossing the Lake George Branch of the canal will be removed by the Contractor. These pipes are located approximately 25' below the water level, underneath 15-20' of sediment. The sections will be removed by the Contractor immediately south of the existing sheet pile wall in order to clear the driveline of the future South Cutoff Wall. In the canal, a localized braced excavation system will be used to isolate the area requiring dredging and obstruction removal, as well as to prevent sloughing of sediment during operations. A silt curtain will be incorporated during the assembly and disassembly of this system, to minimize resuspension. Debris will be stored at a designated area of the site, while sediment from the canal will be transported to a treatment, storage and disposal facility.

Block 29 of SF 1442 continued:

This Contract incorporates the Contractor's (Environmental Quality Management, Incorporated) proposal as dated 27 July 2004 and its supplemental proposal documentation, dated 30 August 2004 and 20 September 2004.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	**Mobilization and Demobilization** Firm-Fixed Price (FFP)	1	Lump Sum	$228,490.00	$228,490.00
				NET AMT	$228,490.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	**Temporary Construction Facilities** FFP	1	Lump Sum	$83,915.00	$83,915.00
				NET AMT	$83,915.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	**Clearing** FFP	10.60	Acre	$6,250.00	$66,250.00
				NET AMT	$66,250.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	**Turbidity Curtain System** FFP	1	Lump Sum	$71,120.00	$71,120.00
				NET AMT	$71,120.00

ITEM NO	SUPPLIES/SERVICES
0005	**Shoring System (Includes Dredging, Disposal and Backfilling)** FFP Informational CLIN – Contractor shall provide bids for item No.'s 0005AA-0005AC. See below.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005AA	**Shoring System #1** FFP	1	Each	$214,145.00	$214,145.00
				NET AMT	$214,145.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005AB	**Shoring System #2** FFP	1	Each	$162,540.00	$162,540.00
				NET AMT	$162,540.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005AC	**Shoring System #3** FFP	1	Each	$162,540.00	$162,540.00
				NET AMT	$162,540.00

ITEM NO	SUPPLIES/SERVICES
0006	**Cutting and Removing and Capping Pipes in Canal** FFP Informational CLIN. The Contractor shall provide bids for Item No.'s 0006AA-0006AD. See below.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006AA	**14 Inch Diameter Pipe (Dredging Area 2)** FFP	4	Each	$9,931.00	$39,724.00
				NET AMT	$39,724.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006AB		5	Each	$8,350.00	$41,750.00
	10 Inch Diameter Pipe (Dredging Area 1) FFP				
				NET AMT	$41,750.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006AC		1	Each	$25,255.00	$25,255.00
	8 Inch Diameter Pipe (Dredging Area 3) FFP				
				NET AMT	$25,255.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006AD		2	Each	$11,170.00	$22,340.00
	6 Inch Diameter Pipe (Dredging Area 1) FFP				
				NET AMT	$22,340.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007		31	Each	$987.50	$30,612.50
	Demolition of 24" Diameter Concrete Filled Pipes (Bollards/Mooring Posts)				
	FFP				
				NET AMT	$30,612.50

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008		4	Each	$2,590.00	$10,360.00
	Demolition of 24" Diameter Concrete Pads				
	FFP				
				NET AMT	$10,360.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009		3	Each	$3,340.00	$10,020.00
	Demolition of Gate Valves				
	FFP				
				NET AMT	$10,020.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010		2	Each	$3,340.00	$6,680.00
	Demolition of Water Valves FFP				
				NET AMT	$6,680.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011		2	Each	$3,340.00	$6,680.00
	Demolition of Valves FFP				
				NET AMT	$6,680.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0012		5	Each	$5,207.50	$26,037.50
	Demolition of Pipes. Pipes range from 4"-12" FFP				
				NET AMT	$26,037.50

ITEM NO	SUPPLIES/SERVICES
0013	**Demolition of Steel and Concrete Structures** FFP

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AA	**Structure #2** FFP	1	Lump Sum	$15,595.00	$15,595.00
				NET AMT	$15,595.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AB	**Structure #3** FFP	1	Lump Sum	$14,275.00	$14,275.00
				NET AMT	$14,275.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AC	**Structure #4** FFP	1	Lump Sum	$14,275.00	$14,275.00
				NET AMT	$14,275.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AD	**Structure #6** FFP	1	Lump Sum	$14,275.00	$14,275.00
				NET AMT	$14,275.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AE	**Structure #7** FFP	1	Lump Sum	$14,275.00	$14,275.00
				NET AMT	$14,275.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013AF	**Structure #8** FFP	1	Lump Sum	$15,595.00	$15,595.00
				NET AMT	$15,595.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0014	**Demolition of Hydrants** FFP	4	Each	$3,565.00	$14,260.00
				NET AMT	$14,260.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0015	**Demolition of Manhole** FFP	1	Each	$10,375.00	$10,375.00
				NET AMT	$10,375.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0016		1,983	Linear Foot	$35.35	$70,099.05
	Remove Existing Fenders and Wall Accessories FFP				
				NET AMT	$70,099.05

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0017		1	Lump Sum	$22,895.00	$22,895.00
	Vehicle and Equipment Decontamination FFP				
				NET AMT	$22,895.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0018		1	Lump Sum	$103,425.00	$103,425.00
	Construction Emissions Air Monitoring FFP				
				NET AMT	$103,425.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0019	**Pre-Construction Survey** FFP	1	Lump Sum	$11,390.00	$11,390.00
				NET AMT	$11,390.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0020	**Filling Pit/Vault** FFP	1	Each	$12,225.00	$12,225.00
				NET AMT	$12,225.00

Total Proposed Price (Items 0001 through 0020) $ 1,541,418.05

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SECTION 00200

INFORMATION AVAILABLE TO BIDDERS

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1.1.2 After Plant Closed
1.1.3 Hydrocarbon Layer
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1.2.2 September 17, 2003 INVESTIGATION - Chemical Characterization for Disposal Requirements
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SECTION 00200

INFORMATION AVAILABLE TO BIDDERS

PART 1 GENERAL

The material presented in this section is intended to provide the Contractor with a historical background of the site, along with a summary of the analytical results from recent sediment sampling events in the Lake George Branch just south of the ECI site. Although a number of sampling events have occurred at the ECI site, all hazards potentially present at the site may not have been characterized. The following paragraphs are a summary of information; the Contractor is encouraged to review the Additional Information Available Paragraph 1.6.

1.1 SITE HISTORY

1.1.1 Refinery Operation

The "ECI property" was the location of a petroleum products refinery from 1918 to 1981. Peak production was approximately 140,000 barrels per day. The project parcel, termed the main refinery, contained the principal production area and also included storage, a marine loading area, rail loading areas, insecticide manufacturing, truck docking facilities, and an American Petroleum Institute (API) separator. The refinery operations included the production of mineral spirits, propane, leaded and unleaded gasoline, fuel oil, kerosene, asphalt and asphalt products, liquefied petroleum gas, grease, lubricating oils, paraffin wax, phenols, and sulfur. Between 1940 and 1958, pyrethrum extract, consisting of dried heads of certain varieties of chrysanthemums, was filtered on site. The filtered extract was combined with kerosene, used an insecticide base, to produce an insecticide. The maximum annual production of insecticide base occurred in 1944 when 49,359 barrels were produced. This accounted for 0.26 percent of the total plant throughout.

1.1.2 After Plant Closed

Former owners of the project site include Sinclair from 1918 to 1968, Atlantic Richfield Company (ARCO) from 1968 to 1976, and Energy Cooperative, Incorporated (ECI) from 1976 to 1981. In 1981, ECI filed for bankruptcy, and in the late 1980s, all buildings and above ground structures were razed in response to a court order. Several inches of clean topsoil were graded to cover the site. In 1989, the City of East Chicago became the owner of the site as payment for back taxes owed by ECI. The site has open Resource Conservation and Recovery Act (RCRA) status because the court-approved closure of the facility was not comparable to a RCRA approved closure. In addition, the site requires RCRA corrective action, due to the contamination of soil and groundwater on site from past industrial activities.

1.1.3 Hydrocarbon Layer

A hydrocarbon layer has been intermittently encountered during groundwater monitoring activities since the beginning of the site investigations in 1991. In 1991, oil was discovered to be seeping into the canal. An oil

recovery system was installed along the north bank of the canal (the south edge of the main refinery parcel), and has been in operation since August 1992. The system consists of several recovery wells, an oil/water separator system, a product storage area, and an infiltration trench for the water. Geraghty & Miller, Inc. was retained by ARCO to operate and maintain the oil recovery system and to gage the existing wells on a quarterly basis. In addition to the oil recovery system, an oil boom is maintained in the canal to control any continued seepage. Since the tentative merger of ARCO and BP Amoco, the oil recovery system has been maintained by ARCO, referred to as BP Amoco/ARCO in this contract, or their consultant.

1.2 SEDIMENT INVESTIGATIONS

1.2.1 July 18, 2002 INVESTIGATION - Physical Characterization for Construction of Waterloo Barrier

The U.S. Army Corps of Engineers (USACE), through a Contractor, obtained sediment borings just south of the existing sheetpile wall on July 18, 2002. The primary goal of this investigation was to determine the physical characteristics of the clay soil below the bottom of the canal. This information will be used in the design of the proposed Waterloo Barrier. The secondary goal of this investigation was to chemically analyze the PCB content of the loose materials encountered between the bottom of the canal and the top of the clay stratum. This information was used to characterize the materials for the Obstruction Removal project and Waterloo Barrier construction.

Results from the primary objective are as follows: The canal bottom consists of a 2 to 5 feet layer of black organic silt overlying gray silt and silty sand deposits. The organic silt deposits were loose, while the silty sand was medium dense to dense. A clay layer in the canal beginning at 548 feet mean sea level (MSL) was identified. The clay till consisted primarily of gray silty clay, with trace fractions of coarse to fine sand, low to high plasticity, and was moist to wet.

In this sampling event, five (5) composite samples were collected from the upper two (2) feet of sediments encountered and were analyzed for polychlorinated biphenyls (PCBs). Analysis was performed in accordance with USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. The analytical data was compared to the Indiana Department of Environmental Management (IDEM) Default Closure Limit for PCB compounds. The Default Closure Limit is intended to be a gauge as to what level of contamination IDEM would deem acceptable for soils left in-place. In summary, the chemical analytical results identified that the samples were contaminated with PCB compounds. At two (2) locations (SED-2-02 and SED-3-02), the detected concentrations of PCB compounds were greater than the IDEM Default Closure Limit, indicating that these soils may have to meet special disposal requirements.

Based on the sample results, it was not anticipated that future values for PCBs in this area would exceed 50 parts per million (ppm). Also, from historical sampling in other areas of the canal, it was not anticipated that the sediment would exceed TCLP concentrations.

The sediment results for the July, 2002 investigation are shown in Attachment 00200-1 at the end of this section. The sediment physical and chemistry raw data from the laboratory is available in the USACE-Chicago District, Geotechnical Engineering project files, if needed.

1.2.2 September 17, 2003 INVESTIGATION - Chemical Characterization for Disposal Requirements

During 15-17 of September, USACE's Contractor, conducted a sediment sampling and analysis event along the existing sheet pile wall. The primary objective of the sediment sampling was to obtain chemical data for the sediments to be dredged from the Lake George Branch of the canal. This data will be used by USACE to characterize the sediment removed during obstruction removal in conjunction with determination of disposal requirements. Five (5) sediment borings were advanced at the site from September 15 to 17, 2003. The borings were performed along an approximate 1,000 foot section of the north side of the canal and were spaced at 200 to 400 foot internals. The depths of the borings increased toward the west, as the elevation of the sediment surface increased.

The bottom layer in all of the sediment borings was a silty clay that appears to be representative of native soils at the site. The top of the silty clay layer ranged from approximately 553 to 563 feet MSL in the test borings. Overlying the silty clay in borings IHC03-C1, IHC03-C2, IHC03-C3 and IHC03-C5 was a sand layer that grades into silty sand in some areas. The sand layer was thickest in the western most boring (IHC03-C1), and gradually decreased in thickness until it was not encountered in boring IHC03-C4. A five (5) foot sand layer was then encountered in the next boring to the east (ICH03-C5). A two (2) foot silty gravel layer was encountered at the sediment surface in boring IHC03-C1 and a one (1) foot sandy gravel layer was encountered at the top of IHC03-C3.

Five (5) sediment samples and one (1) duplicate were submitted for laboratory analysis for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) (EPA Method 846), TCLP semi-volatile organic compounds (SVOCs) (EPA Method 846), TCLP Resource Conservation and Recovery Act (RCRA) 8 metals (EPA Method 846), TCLP pesticides/herbicides (EPA Method 846), closecup flashpoint (EPA Method 1010), reactive sulfides (EPA Method 7.3.4), and total PCBs (EPA Method 8082).

Sediment analytical results were compared to the U.S. Environmental Protection Agency (USEPA) TCLP regulatory levels. None of the compounds detected exceeded regulatory levels. Ignitability and sulfide reactivity were compared to USEPA regulatory levels and no exceedances were noted. Total PCB levels were compared to the Toxic Substances Control Act (TSCA) regulatory level and there were no exceedances. None of the detections exceed EPA TCLP regulatory levels.

The sediment results for the September, 2003 investigation are shown in Attachment 00200-2 at the end of this section. The sediment chemistry raw data from the laboratory is available in the USACE-Chicago District, Environmental Engineering project files, if needed.

1.2.3 PCB Investigation Comparison

The Total PCBs concentrations from the July 18, 2002 sampling event ranged from 1.055 to 10.74 mg/kg. When compared to the IDEM Default Closure Limit, two (2) samples exceeded the limit for PCBs. The PCB concentrations from the September 17, 2003 sampling event ranged from 0.026 to 0.640 mg/kg. Total PCB levels compared to the TSCA regulatory level, revealed no exceedences.

There are two (2) potential reasons why the concentrations from these two

(2) sampling events differed. One factor that could have made a difference in the concentrations seen in the analytical data could be, that in the July 18, 2002 sediment analytical results, some of the reporting limits were elevated due to matrix interferences. Also, the July 18, 2002 sampling event's primary purpose was physical characterization, rather then chemical characterization required for disposal requirements. On the other hand, the September 17, 2003 sampling was specifically directed towards disposal and chemical quality assurance inherent for this action.

1.2.4 Historic Sediment Characterization Data -- Information for Health and Safety Monitoring

A number of sediment characterizations have taken place at various locations within Indiana Harbor and Canal since the 1970's. The results of these investigations have been summarized in a sediment quality database, which can be found in Attachment 00200-3 at the end of this section. This database identifies the maximum concentration, average concentration, and total number of samples taken to date, on a per-analyte basis. It should be noted that this database does not comprise a list of all possible contaminants which may be encountered.

This database is provided to the contractor as an indication of potential contaminants which have been found in the sediments of Indiana Harbor and Canal, and their respective concentrations. The contractor may utilize this resource in the development of the Exposure Monitoring/Air Sampling Program, outlined in SECTION 01525 SAFETY, HEALTH, AND EMERGENCY RESPONSE.

1.3 UTILITY AND PIPELINE SURVEY INVESTIGATIONS

1.3.1 In November 1997, Smith Engineering Consultants, Inc. was contracted by USACE, Chicago District to review pre- and post-site conditions, existing reports, as-built drawings, miscellaneous design and engineering drawings, utility maps, surveys, and various other maps and reports that Chicago District obtained from record archives of previous refinery owners. The reference drawings had a separate tag symbol and associated attributes for each utility and pipeline type. Smith Engineering then incorporated the miscellaneous and archived data into a series of digital utility and pipeline maps of pre- and post-site conditions. Due to inconsistencies, the tags on Smith Engineering's drawings contain only the information that was written on the existing drawings. The status of many lines is unknown and has not been field verified

1.3.2 The drawings for the whole site are available to bidders upon request.

1.3.3 In May 2000, a Real Estate Mapping Survey and Record Search was performed by Smith Engineering Consultants, Inc., contracted by USACE, Chicago District to review existing drawings, maps, and records to identify existing utility and other easements in and adjacent to the project site.

1.4 CONTROL SURVEY DATA AND MAPPING

Field reconnaissance was conducted, and many of the existing structures that contained Indiana West State Plane coordinates and local ECI coordinates or stationing were surveyed. The survey work conducted provided conversion factors for translation between the two coordinate systems. In December, 1997 two brass ACOE datum control marks (brass caps) provided by the Chicago District were installed north of the project site. These control marks were installed on the Cline Avenue (Hwy 912) bridges

located at the northwest and northeast corners from the project. Two existing control points established in October, 1988 were field located on the south end of the project at the Lake George Canal Indianapolis street bridge on the southeast corner and the rail road bridge on the southwest corner. These four marks were tied and closed to establish horizontal and vertical control for the project.

In April 1994, Aero-Metric Engineering, Inc. was contracted by USACE, Chicago District to prepare aerial mapping, topographic and planimetric project mapping for the ECI site in Lake County, Indiana. Stereo aerial photography was performed to complete the mapping requirements. The October, 1988 ground controls were used and verified to compile the mapping.

In July 2003, Bollinger, Lach & Associates, Inc., was contracted by USACE, Chicago District to survey the ECI site in Lake County, Indiana. The information shown on the plans represents the results of this survey.

1.5 ADDITIONAL INFORMATION AVAILABLE

The following information is available for review. Information may be reviewed by contacting the U.S. Army Corps of Engineers Chicago District at 111 North Canal Street, Chicago, Illinois 60606-7206.

a. The U.S. Army Corps of Engineers, Waterways Experiment Station (WES) was contracted by the Chicago District to perform a surface geophysical survey. The purpose of this survey was to attempt to locate pipeline, concrete foundations, and other buried structures that may remain in-place following demolition of the site. The work was conducted in August 1995 and documented in a report entitled "Geophysical Investigations at the Indiana Harbor CDF Site, East Chicago, Indiana", January 1996.

b. Real Estate Mapping Survey and Record Search, Smith Engineering Consultants, Inc., August 2000. The figures include survey results and some utility information.

c. Clean Water Act Section 404(b)(1) Contaminant Determination Report for Indiana Harbor and Canal, Obstruction Removal, for Waterloo Barrier Installation, East Chicago, Indiana, February 23, 2004.

PART 2 PRODUCTS - Not applicable

PART 3 EXECUTION - Not applicable

-- End of Section --

Attachment 00200-1
Summary of Soil Sample Chemical Analytical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	**SED-1-02**	**SED-2-02**	**SED-3-02**	**SED-4-02**	**SED-5-02**
PCBs (mg/kg)					
Aroclor 1016	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1221	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1232	0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1242	2.80	5.77	9.18	0.844	2.05
Aroclor 1248	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1254	<0.25	<0.20	<0.20	<0.20	<0.20
Aroclor 1260	1.21	1.10	1.56	0.211	0.546
Total PCBs	4.01	6.87	10.74	1.055	2.596

Attachment 00200-2
Detected Sample Results
Indiana Harbor and Canal, East Chicago, Indiana

	Compound*	Regulatory Levels	IHC03-C1	IHC03-C1-D	IHC03-C2	IHC03-C3	IHC03-C4	IHC03-C5
TCLP VOCs (µg/L)	Benzene	500	11	12	ND	20	ND	ND
PCBs (ug/kg)	Aroclor-1248	(a)	ND	80	640	140	370	180
PCBs (ug/kg)	Aroclor-1260	(a)	ND	ND	140	26	59	41
TCLP Metals (ug/L)	Arsenic	5,000	ND	ND	ND	ND	ND	13.9
TCLP Metals (ug/L)	Barium	100,000	469	314	920	715	738	288
TCLP Metals (ug/L)	Cadmium	1,000	2	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Chromium	5,000	16	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Lead	5,000	157	92.8	ND	208	ND	ND
TCLP Metals (ug/L)	Selenium	1,000	16.2	ND	ND	ND	ND	ND
TCLP Metals (ug/L)	Mercury	200	0.11	ND	ND	0.05	0.04	ND

Notes:
(a) = Total PCB Toxic Substances Control Act (TSCA) regulatory level is 50,000 ug/kg.
ND = Non-detect
D = Duplicate
* = All other results, including all results for SVOCs and pesticides/herbicides, were non-detect.

Attachment 00200-3

Summary of USACE Indiana Harbor Sediment Quality Database

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
4,4-DDD	Max of CONCEN			0.316		
	Average of CONCEN			0.103		
	Count of CONCEN			18		
4,4-DDE	Max of CONCEN			0.0563		
	Average of CONCEN			0.0382		
	Count of CONCEN			15		
ACENAPHTHENE	Max of CONCEN			55.0		
	Average of CONCEN			19.5		
	Count of CONCEN			28		
ACENAPHTHYLENE	Max of CONCEN			630		
	Average of CONCEN			37.8		
	Count of CONCEN			22		
ALDRIN	Max of CONCEN			0.0448		
	Average of CONCEN			0.0448		
	Count of CONCEN			1		
ALKALINITY	Max of CONCEN					216
	Average of CONCEN					117
	Count of CONCEN					12
ALUMINUM	Max of CONCEN			15000		1.19
	Average of CONCEN			8760		0.668
	Count of CONCEN			20		4
AMMONIA NITROGEN	Max of CONCEN			3900		31.1
	Average of CONCEN			682		3.89
	Count of CONCEN			96		14
ANTHRACENE	Max of CONCEN			310		
	Average of CONCEN			29.8		
	Count of CONCEN			29		
ANTIMONY	Max of CONCEN			42.4		
	Average of CONCEN			23.5		
	Count of CONCEN			18		
ARSENIC	Max of CONCEN	0.13		220	0.379	0.02
	Average of CONCEN	0.098		51.9	0.194	0.0145
	Count of CONCEN	5		108	7	9
BARIUM	Max of CONCEN	1.23		334	0.928	0.079
	Average of CONCEN	0.768		118	0.666	0.0314
	Count of CONCEN	5		52	17	12
BENZENE	Max of CONCEN			28	0.575	
	Average of CONCEN			6.65	0.114	
	Count of CONCEN			7	10	
BENZO(A)ANTHRACENE	Max of CONCEN			230		
	Average of CONCEN			39.6		
	Count of CONCEN			34		

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Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
BENZO(A)PYRENE	Max of CONCEN			150		
	Average of CONCEN			22.5		
	Count of CONCEN			33		
BENZO(B) FLUORANTHENE	Max of CONCEN			120		
	Average of CONCEN			23.3		
	Count of CONCEN			33		
BENZO(G,H,I)PERYLENE	Max of CONCEN			34.6		
	Average of CONCEN			10.7		
	Count of CONCEN			25		
BENZO(K) FLUORANTHENE	Max of CONCEN			60		
	Average of CONCEN			10.6		
	Count of CONCEN			33		
BERYLLIUM	Max of CONCEN			5		
	Average of CONCEN			2.66		
	Count of CONCEN			11		
BOD	Max of CONCEN					53
	Average of CONCEN					15.1
	Count of CONCEN					11
BORON	Max of CONCEN			550		
	Average of CONCEN			358		
	Count of CONCEN			13		
CADMIUM	Max of CONCEN	0.019		93.7		
	Average of CONCEN	0.0134		15.1		
	Count of CONCEN	5		131		
CALCIUM	Max of CONCEN			88800		
	Average of CONCEN			39600		
	Count of CONCEN			20		
CHLORIDE	Max of CONCEN					572
	Average of CONCEN					102
	Count of CONCEN					12
CHROMIUM	Max of CONCEN	0.178		4470	1.08	0.034
	Average of CONCEN	0.121		610	0.297	0.0119
	Count of CONCEN	5		151	14	9
CHRYSENE	Max of CONCEN			400		
	Average of CONCEN			62.1		
	Count of CONCEN			34		
COBALT	Max of CONCEN			23		
	Average of CONCEN			12.8		
	Count of CONCEN			5		
COD	Max of CONCEN			760000		299
	Average of CONCEN			215000		61.4
	Count of CONCEN			76		14

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
COPPER	Max of CONCEN			850		0.048
	Average of CONCEN			200		0.0173
	Count of CONCEN			132		7
CYANIDE	Max of CONCEN			3		0.32
	Average of CONCEN			1.64		0.0834
	Count of CONCEN			9		13
D-BHC	Max of CONCEN			0.006		
	Average of CONCEN			0.00413		
	Count of CONCEN			2		
DIBENZO(A,H) ANTHRACENE	Max of CONCEN			16.2		
	Average of CONCEN			3.48		
	Count of CONCEN			18		
DIELDRIN	Max of CONCEN			0.0257		
	Average of CONCEN			0.0185		
	Count of CONCEN			16		
DISSOLVED SOLIDS	Max of CONCEN					1620
	Average of CONCEN					425
	Count of CONCEN					12
ENDOSULFAN II	Max of CONCEN			0.0403		
	Average of CONCEN			0.0375		
	Count of CONCEN			2		
ETHYLBENZENE	Max of CONCEN			3.4		
	Average of CONCEN			1.27		
	Count of CONCEN			8		
FINES (<200)	Max of CONCEN		99.6			
	Average of CONCEN		73.1			
	Count of CONCEN		30			
FLUORANTHENE	Max of CONCEN			650		
	Average of CONCEN			69.8		
	Count of CONCEN			34		
FLUORENE	Max of CONCEN			380		
	Average of CONCEN			40.1		
	Count of CONCEN			31		
FLUORIDE	Max of CONCEN					1.5
	Average of CONCEN					0.504
	Count of CONCEN					12
HEPTACHLOR EPOXIDE	Max of CONCEN			0.0122		
	Average of CONCEN			0.00934		
	Count of CONCEN			4		
INDENO(1,2,3-C,D)PYRENE	Max of CONCEN			34		
	Average of CONCEN			9.88		
	Count of CONCEN			19		

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
IRON	Max of CONCEN			332000		2.85
	Average of CONCEN			108000		1.15
	Count of CONCEN			157		14
LEAD	Max of CONCEN	0.54		8940	0.894	0.032
	Average of CONCEN	0.474		846	0.270	0.026
	Count of CONCEN	5		179	17	2
LINDANE	Max of CONCEN			0.007		
	Average of CONCEN			0.007		
	Count of CONCEN			1		
M,P-XYLENES	Max of CONCEN			60		
	Average of CONCEN			11.6		
	Count of CONCEN			9		
MAGNESIUM	Max of CONCEN			50000		16.5
	Average of CONCEN			15600		14.9
	Count of CONCEN			98		2
MANGANESE	Max of CONCEN			38200		0.203
	Average of CONCEN			2010		0.0813
	Count of CONCEN			164		13
MERCURY	Max of CONCEN	0.0003		3		0.0019
	Average of CONCEN	0.00025		1.06		0.000308
	Count of CONCEN	2		99		12
MOLYBDENUM	Max of CONCEN			66000		
	Average of CONCEN			46900		
	Count of CONCEN			7		
NAPHTHALENE	Max of CONCEN			5800		
	Average of CONCEN			1080		
	Count of CONCEN			7		
NICKEL	Max of CONCEN			394		0.008
	Average of CONCEN			84.6		0.008
	Count of CONCEN			166		1
NO3 NITROGEN	Max of CONCEN			71		
	Average of CONCEN			42.1		
	Count of CONCEN			7		
NO3/NO2 NITROGEN	Max of CONCEN					0.87
	Average of CONCEN					0.454
	Count of CONCEN					14
O-XYLENE	Max of CONCEN			17		
	Average of CONCEN			3.38		
	Count of CONCEN			10		
OIL & GREASE	Max of CONCEN			212000		100
	Average of CONCEN			42600		21.1
	Count of CONCEN			90		7

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
ORG NITROGEN	Max of CONCEN			8130		
	Average of CONCEN			4990		
	Count of CONCEN			7		
PHENANTHRENE	Max of CONCEN			1170		
	Average of CONCEN			192		
	Count of CONCEN			34		
PHENOL	Max of CONCEN			3800		0.014
	Average of CONCEN			107		0.008
	Count of CONCEN			36		13
POTASSIUM	Max of CONCEN			9980		
	Average of CONCEN			7530		
	Count of CONCEN			3		
PYRENE	Max of CONCEN			500		
	Average of CONCEN			91.0		
	Count of CONCEN			34		
SELENIUM	Max of CONCEN	0.002		6.9	0.06	0.015
	Average of CONCEN	0.00133		4.13	0.06	0.015
	Count of CONCEN	3		34	1	1
SILVER	Max of CONCEN	0.011		22		
	Average of CONCEN	0.0088		7.57		
	Count of CONCEN	5		7		
SODIUM	Max of CONCEN			2.5		
	Average of CONCEN			1.04		
	Count of CONCEN			5		
SULFATE	Max of CONCEN					188
	Average of CONCEN					74.7
	Count of CONCEN					12
SULFIDE	Max of CONCEN			2800		
	Average of CONCEN			1800		
	Count of CONCEN			7		
SUSPENDED SOLIDS	Max of CONCEN					166
	Average of CONCEN					37.2
	Count of CONCEN					12
TETRACHLOROETHENE	Max of CONCEN			0.533		
	Average of CONCEN			0.533		
	Count of CONCEN			1		
THALLIUM	Max of CONCEN			7.7		
	Average of CONCEN			4.2		
	Count of CONCEN			6		
TIN	Max of CONCEN			470		
	Average of CONCEN			280		
	Count of CONCEN			10		

Summary of USACE Indiana Harbor Sediment Quality Database (Continued)

		EP-TOXICITY	SEDIMENT		TCLP	WATER
		MG/L	%	MG/KG	MG/L	MG/L
TITANIUM	Max of CONCEN			320		
	Average of CONCEN			221		
	Count of CONCEN			7		
TKN	Max of CONCEN			10800		43.7
	Average of CONCEN			2670		6.31
	Count of CONCEN			72		14
TOC	Max of CONCEN		14.5	93000		95
	Average of CONCEN		10.7	16500		15.5
	Count of CONCEN		18	48		14
TOLUENE	Max of CONCEN			55		
	Average of CONCEN			8.59		
	Count of CONCEN			9		
TOTAL CYANIDE	Max of CONCEN			24.1		
	Average of CONCEN			10.5		
	Count of CONCEN			18		
TOTAL PCB	Max of CONCEN			115		
	Average of CONCEN			15.7		
	Count of CONCEN			127		
TOTAL PHOSPHORUS	Max of CONCEN			9600		3.36
	Average of CONCEN			2410		0.391
	Count of CONCEN			81		13
TOTAL SOLIDS	Max of CONCEN		95.5			
	Average of CONCEN		54.7			
	Count of CONCEN		124			
TRPH	Max of CONCEN			119000		
	Average of CONCEN			72000		
	Count of CONCEN			18		
VANADIUM	Max of CONCEN			340		0.007
	Average of CONCEN			137		0.007
	Count of CONCEN			12		2
VOLATILE SOLIDS	Max of CONCEN		28.7	21.5		
	Average of CONCEN		11.3	21.5		
	Count of CONCEN		123	1		
ZINC	Max of CONCEN			10000		0.109
	Average of CONCEN			3230		0.0745
	Count of CONCEN			168		11

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SECTION 00320

GEOTECHNICAL DATA

PART 1 GENERAL

1.1 SUBSURFACE CONDITIONS
1.2 ADDITIONAL INFORMATION ON SUBSURFACE CONDITIONS

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Document Table of Contents --

SECTION 00320

GEOTECHNICAL DATA

PART 1 GENERAL

1.1 SUBSURFACE CONDITIONS

Subsurface exploratory borings have been obtained by the Government to determine the general character of the subsurface materials within the project area. Locations of the borings are shown on the Drawings, and the logs of those borings that fall within the area of this contract are included for the convenience of the Contractor. The subsurface exploration report and borings are included in Appendix A at the end of this section. The Government assumes no responsibility for any interpretation or deductions made by the Contractor from the logs and data. While the borings are generally representative of subsurface conditions at their respective locations and for their respective vertical reaches, localized variations of characteristics of the subsurface materials should be anticipated. The canal water elevation, shown on the boring logs, are those encountered at the time when the borings were taken, and will fluctuate due to factors such as rainfall, lake and/or canal stages.

1.2 ADDITIONAL INFORMATION ON SUBSURFACE CONDITIONS

Additional information on subsurface conditions at the project site is contained in the following reports:

a. U.S. Army Corps of Engineers, Chicago District (March 2000), Indiana Harbor and Canal, Maintenance Dredging and Disposal Activities - Design Documentation Report.

b. Patrick Engineering, Inc., (1996) Phase I Site Investigation - Indiana Harbor CDF Geotechnical Investigation, prepared for U.S. Army Corps of Engineers, Chicago District.

These reports may be reviewed by contacting the U.S. Army Corps of Engineers, Chicago District at 111 North Canal Street, Chicago, Illinois 60606-7206 (Attn: John Breslin, 312-846-5451).

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --

REPORT OF SOUTH CUTOFF WALL INVESTIGATION

FOR THE INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY

EAST CHICAGO, INDIANA

PREPARED FOR
THE U.S. ARMY CORPS OF ENGINEERS
CHICAGO DISTRICT

PATRICK ENGINEERING PROJECT NO. 9326.C1

JANUARY 2003

SUBMITTED BY:
PATRICK
ENGINEERING INC.

INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY
SOUTH CUTOFF WALL INVESTIGATION REPORT

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Appendix A- Boring Logs
Appendix B- Physical Laboratory Testing Results
Appendix C- Chemical Analytical Testing Results

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INTRODUCTION AND AUTHORIZATION

1. At the request of the Chicago District of the U.S. Army Corps of Engineers (COE), an investigation has been performed at the Indiana Harbor and Canal Confined Disposal Facility (CDF), in East Chicago, Indiana. Specifically, the investigation was performed within the Lake George Canal, along the proposed alignment where the South Cutoff Wall will be constructed. The investigation was performed to identify subsurface soil conditions that may affect the design and construction of the cutoff wall. The COE anticipates that the South Cutoff Wall will be a grouted sheet pile wall (Waterloo Barrier) to be constructed approximately 2 feet south of the existing sheet pile retaining wall that bounds the north side of the canal. The investigation was performed in accordance with Contract No. DACW23-01-D-0004, Delivery Order No. 0007, dated June 27, 2002.

2. This report documents the field exploration methodologies and findings of the investigation. The field observations and laboratory test results were used to prepare the Boring Logs in Appendix A. Appendix B contains the Laboratory Testing Results for select soil specimens obtained during this investigation. Appendix C contains the results of the Chemical Analytical Testing program.

PROJECT BACKGROUND

3. Site Location. The Indiana Harbor and Canal CDF consists of a 168-acre parcel located in East Chicago, Indiana, northwest of the intersection of Indianapolis Boulevard and Lake George Canal. The CDF is bounded on the south by Lake George Canal, to the east by Indianapolis Boulevard, on the north by the Cline Avenue overpass, and on the west by a rail spur and refinery tank farm. The COE will be utilizing the CDF as a disposal facility for dredged material from the Indiana Harbor located approximately two miles to the north.

4. The area investigated for this project (hereinafter referred to as the "Site") was limited to the Lake George Canal, immediately adjacent to the CDF south property boundary. Refer to Exhibit 1 for the general Site layout.

5. CDF Property History. The CDF property was the location of a petroleum refinery between the years 1918 and 1981. The property contained facilities for storage, marine loading, rail loading, insecticide production, truck docks and API separator. Former owners of the property included Sinclair Oil, ARCO, and Energy Cooperative Incorporated (ECI). In 1981, ECI filed for bankruptcy and in the late 1980s all buildings and aboveground structures were razed. Several inches of topsoil were graded over the surface to cover the land. In 1989, the City of East Chicago took ownership of the property in lieu of payment of back taxes owed by ECI.

6. In the 1990s, several subsurface investigations were performed which included the installation of several groundwater monitoring wells. While monitoring groundwater

levels, a floating hydrocarbon layer was measured at several locations within the southern half of the property. In 1992, an oil recovery system was installed between the Lake George Canal and the south boundary of the property. The oil recovery system consists of three recovery wells, a free product tank, oil/water separator and an infiltration trench. The system has been maintained on a quarterly basis since it was installed.

7. CDF Project Description. When completed, the CDF will be used to contain contaminated sediments that will be mechanically or hydraulically dredged from the Indiana Harbor and Canal (IHC). Perimeter vertical hydraulic barriers (soil-bentonite slurry wall or grouted sheet pile cutoff walls) that extend approximately 33 to 40 feet from the ground surface into the underlying clay till are part of the construction. The north, east and west sides of the CDF will be contained by a soil–bentonite slurry wall. The South Cutoff Wall will be a grouted sheet pile wall (Waterloo Barrier) located in the Lake George Canal, approximately 2 feet south of the existing sheet pile retaining wall. The intervening space between the Waterloo Barrier and the existing sheet pile wall will be filled with sand.

PURPOSE AND SCOPE OF INVESTIGATION

8. Investigation Program. The primary goal of this investigation was to determine the physical characteristics of the clay soil below the bottom of the canal. This information is needed for the design of the proposed South Cutoff Wall. The secondary goal of this investigation was to chemically analyze the PCB content of the loose materials encountered between the bottom of the canal and the top of clay stratum. This information is needed to characterize the materials for others who will perform canal dredging operations and cutoff wall construction. The project goals were accomplished through performance of the following work:

   - Drilling and sampling the canal bottom materials and underlying clay soil at a total of 29 locations along the proposed cutoff wall alignment. All borings were made within the canal, approximately 2 feet south from the existing sheet pile retaining wall that bounds the north side of the canal. The soil borings were made using either a specially equipped drilling rig or Eijkelkamp hand-auger/piston sampler equipment.

   - Laboratory testing of select samples to evaluate the Atterberg limits and particle size distribution of the material.

   - Chemical analysis of select samples to determine concentrations of PCB compounds. Analysis was limited to samples obtained from the loose materials encountered between the bottom of the canal and the underlying clay till stratum.

9. The investigation program was developed by the COE and is summarized in Table 1.

SUBSURFACE EXPLORATION

10. Exploration Program. The exploration program was completed in 2 separate phases and consisted of making a total of 29 borings along the proposed alignment of the South Cutoff Wall. Field investigations were completed during July and September, 2002. The boring locations for this project are shown on Exhibit 2.

11. The first phase of the project included using a specially equipped drilling rig and hollow-stem auger or mud-rotary methodologies to drill and continuously sample 12 borings (SWB-1-02 through SWB-12-02) along the cutoff wall alignment. In general, these borings were spaced approximately 200 to 300 feet apart. Each of these borings was terminated a minimum of 10 feet into the clay till stratum underlying the loose materials at the bottom of the canal. This phase of the project also included using an Eijkelkamp piston sampler to obtain samples of the canal bottom materials at 5 locations (SED-1-02 through SED-5-02).

12. The second phase of the project consisted of using Eijkelkamp hand-augers and piston samplers to complete an additional 12 borings (SWB-13-02 through SWB-24-02) along the cutoff wall alignment. The COE selected these boring locations after evaluating the results of the first phase borings which identified significant changes in bottom of canal and top of clay till stratum elevations. In general, these additional borings were intended to provide more detailed information between the first phase boring locations, to further refine the geologic profile along the cutoff wall alignment. Each of these borings was terminated either a minimum of 3 feet into the clay till stratum underlying the loose materials at the bottom of the canal or to a depth where the unconfined compressive strength of the clay equaled or exceeded 1.0 tsf, whichever was shallower.

DRILLING METHODS

13. General. All field exploration was performed under the direction of an experienced geologist. The geologist maintained the daily drilling records, logged and preserved the soil samples, and supervised decontamination procedures. The borings were logged according to the locally adapted version of the Unified Soil Classification System, **ASTM D 2487** and in accordance with U.S. Army Corps of Engineers procedure, **EM 1110 1-1804**, "Geotechnical Investigation". Hand-held calibrated penetrometer tests were performed in the field on cohesive samples to serve as a general measure of consistency and to estimate unconfined compressive strength. The field logs, together with the laboratory test results, were used to develop the Boring Logs included in Appendix A.

14. *Conventional Drilling*. Borings SWB-1-02 through SWB-12-02 were made using a Dietrich Model D50 drill rig mounted on an all-terrain vehicle. The rig was specially equipped with a custom work platform that allowed the drillers to work over the canal while the drill rig was on-land. The borings were made approximately 2 feet south of the

existing sheet pile retaining wall that bounds the north side of the canal. With the exception of Boring SWB-1-02, the borings were advanced using mud-rotary methodology and a 2.9–inch roller bit. Four–inch outside diameter threaded steel casing was used to stabilize the sides of the boreholes as the borings were advanced. Boring SWB-1-02 (the first boring attempted for this project) was made using 3.25-inch inside diameter hollow stem augers. Due to the field conditions which required the drillers to hang as much as 25 to 30 feet of auger sections over the canal, the hollow-stem auger methodology proved to be cumbersome. After consulting with the COE Contracting Officer Representative, Patrick Engineering modified the drilling methodology to the mud-rotary/casing advancer methodology, which proved to be a much more efficient method for completing the borings.

15. These borings were continuously sampled using a 2.0-inch outside diameter by 24-inch long split-spoon sampler in accordance with ASTM D 1586. After advancing the split-spoon sampler in the desired sample interval, the sampler was retracted from the borehole, the spoon was opened, and the recovered material was removed for examination and logging by the field geologist. Excellent sample recoveries were obtained.

16. *Hand Borings*. Borings SED-1-02 through SED-5-02, and SWB-13-02 through SWB-24-02 were made using Eijkelkamp hand-augers and piston samplers to advance the borings to termination depth. The work platform for these borings consisted of a motorized pontoon boat that was anchored in the canal above each of the boring locations. Borings SED-1-02 through SED-5-02 were made using an Eijkelkamp piston sampler. Borings SWB-13-02 through SWB-24-02 were advanced through the loose materials at the bottom of the canal using bailer boring equipment. (Bailer boring equipment has a specialized auger head attachment with a butterfly valve over the sampling shoe. This equipment is particularly well suited for sampling loose sediment materials.) Specimens of the underlying clay till soils were obtained using either a hand-auger or a piston sampler. Sections of 4-inch diameter PVC casing were used to stabilize the borehole walls as the borings were advanced.

17. Sample Preservation (Physical Specimens). At boring locations SWB-1-02 through SWB-24-02, representative specimens of each 2-foot sample interval were preserved in 8-ounce glass jars, with additional jars used, if necessary, for material changes within the sample interval. Jar samples were labeled with the pertinent sample information and sealed using twist-on lids. The samples were then packed in divided cardboard boxes, and transported in an upright position to the Patrick Engineering soil testing laboratory for storage and testing.

18. Sample Preservation (Chemical Specimens). Samples for chemical analysis were preserved from Borings SED-1-02 through SED-5-02. At each of these boring locations, a composite sample was made of the upper 2 feet of the loose materials obtained from the bottom of the canal. The composite sampling procedure consisted of placing the recovered materials in a stainless steel mixing tray, and then thoroughly mixing the

materials with a trowel. The Eijkelkamp sampling equipment, mixing tray and trowel were washed and rinsed between boring locations to prevent potential cross contamination. In addition, the field technicians donned new latex gloves at each location to prevent potential cross contamination. Each sample was preserved in a 4-ounce glass jar sealed with a Teflon-lined twist-on cap. (Sample containers were provided by the contract environmental laboratory prior to mobilizing to the Site.) After labeling, the jars were immediately placed into a cooler, on ice for the duration of the field activities, and until the samples could be delivered to the contract environmental laboratory. A completed chain of custody was packed inside the cooler and accompanied the samples at all times.

19. Decontamination Procedures. Prior to its use at boring locations SED-1-02 through SED-5-02, the Eijkelkamp sampling equipment was decontaminated. Decontamination consisted of using a scrub brush to wash the equipment in a solution of Alconox detergent and potable water. The equipment was then double-rinsed with distilled water and allowed to air-dry between uses. Wash and rinse water was containerized in one 55-gallon steel drum and temporarily staged on-site pending arrangements for disposal.

20. Other equipment that was used during this project, including the drilling rig, downhole tooling, boat platforms and logging tools, was decontaminated prior to demobilizing the equipment from the Site. Decontamination of this equipment consisted of using a steam-generating pressure washer to remove oily residue, and dirt and mud debris from the equipment. Wash water from the equipment decontamination operations was containerized in two 55-gallon drums and temporarily staged on-site pending arrangements for disposal.

21. All decontamination operations were performed within a temporary decontamination pad that was constructed solely for this purpose. At the conclusion of the fieldwork, all liquid wastes were disposed, and the decontamination pad was disassembled and removed from the Site. The waste characterization and disposal activities are documented in a report (*Waste Characterization and Disposal Report – Indiana Harbor and Canal South Cutoff Wall Investigation*, Patrick Engineering Inc., October 2002) that was submitted to the COE under separate cover.

22. Borehole Locations and Surveying. The borehole locations were selected by the COE and were located in the field relative to the top of the sheet pile retaining wall that bounds the north side of the canal. After completing the drilling and sampling operations, the top of canal elevation (water surface) and borehole locations were surveyed relative to existing benchmarks. Locations of the borings were described using the Indiana State Plane Coordinate System, and were surveyed within a horizontal tolerance of ±1.0 foot and a vertical tolerance of ±0.1 foot. Elevations are referred to Mean Sea Level Datum (National Geodetic Vertical Datum, 1929). The boring location coordinates and elevations are summarized on Table 1. Depth to bottom of canal was measured relative to the top of the retaining wall that bounds the north side of the canal using a weighted

tape measure. The survey information is also included on the Boring Logs and on Exhibit 3.

LABORATORY TESTING

23. Laboratory Testing Program (Physical Properties). The Laboratory Testing Program to determine select physical properties of the soil was developed by the COE. Laboratory testing of the soil samples was performed at the Patrick Engineering soils laboratory in Lisle, Illinois. Testing was performed in accordance with the COE Engineering Manual, *Laboratory Soil Testing*, EM 1110-2-1906, and select ASTM procedures. The physical testing program consisted of the following tests:

    - Atterberg Limits: A total of 15 Atterberg limits tests (plastic and liquid limits) were performed in accordance with ASTM D 4318.

    - Particle Size Distribution: A total of 10 particle size distribution tests (washed sieve with hydrometer) were performed in accordance with ASTM D 422.

24. The laboratory test results are summarized in Table 2. The results are also noted on the Boring Logs and on Exhibit 3. Laboratory test reports are included in Appendix B. The test results were used to refine and revise, as necessary, the field classifications of the soils encountered.

25. Chemical Analytical Program. The Chemical Analytical Program was developed by the COE. The testing program was limited to analyzing the 5 composite samples obtained from Borings SED-1-02 through SED-5-02 for PCB compounds. Chemical analysis was performed at First Environmental Laboratories, Naperville, Illinois. Analysis was performed in accordance with USEPA publication: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW846, 3rd Edition, Method 3540C/8082. Results are summarized in Table 3, and noted on the Boring Logs. Included on Table 3 is the Indiana Department of Environmental Management (IDEM) Default Closure Limit for PCB compounds. The Default Closure Limit is provided for comparison purposes and is intended as a gauge as to what level of contamination the IDEM would deem acceptable for soils left in-place. In summary, the chemical analytical results identified that the samples are contaminated with PCB compounds. At two locations (SED-2-02 and SED-3-02), the detected concentrations of PCB compounds were greater than the IDEM Default Closure Limit, indicating that these soils may require special handling if removed. A copy of the Laboratory Analysis Report is included in Appendix C.

SUBSURFACE CONDITIONS

26. Lake George Canal. The canal section at the project site is approximately 250 feet wide. The top of canal (water surface) is at EL. 579.3 feet MSL, approximately 7 feet below the top of the existing sheet pile wall that bounds the north side of the canal. (The top of canal elevation was measured on September 4, 2002.) The canal depth varied across the Site, from 7 feet to 9 feet deep at the western extent of the Site to 19 feet to 23 feet deep at the eastern extent. During the duration of the fieldwork for this project, Patrick Engineering observed an oily sheen on the water surface.

27. Bottom of Canal Materials. The bottom of canal materials consisted primarily of a 2- to 5-foot thick layer of black organic silt overlying gray silt to silty sand deposits. The organic silt deposits were typically loose (uncorrected blow counts less than N=4). The silty sand deposits were typically medium dense to dense (uncorrected blow counts between N=11 and 38).

28. Underlying Clay Till. The clay till underlying the canal bottom materials consisted primarily of gray silty clay, with trace fractions of coarse to fine sand, low to high plasticity (as estimated using field methods, e.g., ribbon tests), and was moist to wet. Based on calibrated pocket penetrometer measurements, consistency of this soil ranged from soft (0.5 tsf) to hard (4.0 tsf). In general, the stiffness of the till soil increased with depth. Liquid limits of this soil ranged from 31 to 43, with plastic limits between 16 and 23. Between boring locations SWB-4-02 and SWB-13-02 (approximately 200-foot section on the eastern extent of the Site), fat clay (liquid limit greater than 50) was encountered below the bottom of canal materials.

29. A Geologic Profile depicting interpreted subsurface conditions along the cutoff wall alignment is shown on Exhibit 3. As shown on the exhibit, with the exception of a 200-foot section between boring locations SWB-4-02 and SWB-13-02, the top of clay till elevation was typically encountered between EL. 555 and 560 feet MSL. Between boring locations SWB-4-02 and SWB-13-02, the top of clay till elevation undulated between EL. 548 and 554 feet MSL. The undulating surface did not appear to be natural and may have been the result of excavation to construct or abandon an underground utility. Cut off sections of at least 2 pipelines were observed protruding from the embankment on the south side of the canal directly across from this section of the Site. The purpose of the pipeline was not determined, but may have been associated with a former barge loading facility.

QUALITY CONTROL

30. General. This document was produced in accordance with a Patrick Engineering Inc. Quality Control Plan. A Product Development Team (PDT) developed the report and was responsible for internal quality control by means of internal checks and backchecks. An Internal Technical Review (ITR) Team was responsible for technical review and

quality assurance checks. A Senior Project Manager was responsible for integrating the teams and providing final quality control/quality assurance.

31. Team Management Structure. The teams were structured with the following responsible individuals:

Senior Project Manager -	Scott Letzel, P.G.
PDT Team Leader -	Scott Letzel, P.G.
PDT Project Geologist-	Jerry Bowden, P.G.
ITR Team Leader-	Jeffrey C. Schuh, P.E.

32. Quality Control/Quality Assurance Certification. The undersigned hereby certify that preparation and review of this document was completed in accordance with the Patrick Engineering Inc. Quality Control Plan.

Scott Letzel 2/4/03
Senior Project Manager Date

Jerry Bowden 2/4/03
PDT Project Geologist Date

Jeffrey C. Schuh 2/4/03
ITR Team Leader Date

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TABLES

Table 1 – Summary of Investigation Program

Table 2 – Summary of Laboratory Physical Testing Results

Table 3 – Summary of Chemical Analytical Results

TABLE 1
Summary of Investigation Program
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	Survey Information						Drilling Depths				Laboratory Testing			Drilling Methodology		
	Coordinates		Top of Retaining Wall Elev.	Top of Canal Elev.	Bottom of Canal Elev.	Top of Clay Elev.	Depth to Top of Canal	Depth to Bottom of Canal	Depth to Top of Clay	Boring Termination Depth	Atterberg Limits	Washed Sieve w/ Hydrometer	Chemical Analytical Testing PCB's	Hollow Stem Auger	Mud Rotary	Eijkelkamp Hand Auger/Piston Sampler
	Northing	Easting	(feet MSL)	(feet MSL)	(feet MSL)	(feet MSL)	(feet below top of retaining wall)	(feet below top of retaining wall)	(feet below top of canal)	(feet below top of canal)						
SWB-1-02	1510724.4	391173.0	586.4	579.3	559.6	558.4	7.13	26.8	20.9	30.7	X	X		X		
SWB-2-02	1510728.3	390992.4	586.5	579.3	557.6	557.1	7.21	28.9	22.2	34.2	X	X			X	
SWB-3-02	1510729.9	390878.5	586.5	579.3	556.6	556.5	7.24	29.9	22.8	34.7	X	X			X	
SWB-4-02	1510735.1	390641.3	586.6	579.3	558.0	553.0	7.29	28.6	26.3	37.8	X	X			X	
SWB-5-02	1510740.6	390382.0	586.7	579.3	557.5	557.3	7.44	29.2	22.0	33.8	X	X			X	
SWB-6-02	1510743.1	390249.3	586.6	579.3	559.2	557.8	7.29	27.4	21.5	33.2					X	
SWB-7-02	1510745.8	390108.1	586.5	579.3	560.3	556.5	7.23	26.2	22.8	32.8	X	X			X	
SWB-8-02	1510749.5	389929.1	586.5	579.3	564.3	558.5	7.20	22.2	20.8	30.8	X	X			X	
SWB-9-02	1510752.4	389752.4	586.0	579.3	572.3	559.0	6.69	13.7	20.3	31.0					X	
SWB-10-02	1510758.5	389334.1	586.3	579.3	571.0	559.3	6.99	15.3	20.0	32.0	X	X			X	
SWB-11-02	1510732.4	390758.6	586.3	579.3	556.1	552.4	7.02	30.2	26.9	39.2	X	X			X	
SWB-12-02	1510754.5	389579.7	586.2	579.3	573.1	558.2	6.94	13.2	21.1	35.1	X	X			X	
SWB-13-02	1510730.7	390839.3	586.5	579.3	555.8	553.9	7.17	30.7	25.4	32.0	X					X
SWB-14-02	1510733.8	390719.4	586.5	579.3	555.9	548.4	7.17	30.6	30.9	37.0						X
SWB-15-02	1510734.6	390679.5	586.4	579.3	556.2	551.0	7.14	30.2	28.3	33.7						X
SWB-16-02	1510732.0	390796.2	586.5	579.3	555.7	550.2	7.20	30.8	29.1	30.6	X					X
SWB-17-02	1510727.9	390968.2	586.3	579.3	556.8	555.6	6.99	29.5	23.7	26.3	X					X
SWB-18-02	1510736.7	390570.8	586.5	579.3	557.2	554.2	7.16	29.3	25.1	28.1						X
SWB-19-02	1510738.1	390502.2	586.4	579.3	557.1	556.1	7.11	29.3	23.2	26.4	X					X
SWB-20-02	1510722.0	391271.7	586.3	579.3	563.4	563.4	7.04	23.0	15.9	19.8						X
SWB-21-02	1510747.0	390020.2	586.5	579.3	559.6	554.5	7.16	26.9	24.8	26.6	X					X
SWB-22-02	1510756.2	389477.6	586.2	579.3	572.1	557.2	6.92	14.1	22.1	22.5						X
SWB-23-02	1510760.9	389195.8	586.3	579.3	571.1	557.1	7.00	15.2	22.2	22.6						X
SWB-24-02	1510724.0	391196.4	586.6	579.3	559.6	555.1	7.27	27.0	24.2	25.2						X
SED-1-02	1510735.3	390629.2	586.6	579.3	557.6		7.28	29.0		24.2			X			
SED-2-02	1510757.6	389448.5	586.2	579.3	572.0		6.90	14.2		13.1			X			
SED-3-02	1510759.7	389321.4	586.1	579.3	570.8		6.81	15.3		14.5			X			
SED-4-02	1510759.2	389297.4	586.1	579.3	570.8		6.85	15.3		14.5			X			
SED-5-02	1510759.9	389270.5	586.2	579.3	571.0		6.90	15.2		14.3			X			
Contract Amount											15	10	5	12		12
Quantity Delivered											**15**	**10**	**5**	**1**	**11**	**12**

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TABLE 2
Summary of Soil Sample Physical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	Sample No.	Sample Depth (feet)	Soil Class.	Particle Size Distribution				Atterberg Limits	
				Gravel %	Sand %	Silt %	Clay %	LL	PL
SWB-1-02	SS-2	22.7-24.7	CL	0.0	2.7	52.7	44.6	39	17
SWB-2-02	SS-2	24.2-26.2	CL	0.0	3.1	49.1	47.8	41	19
SWB-3-02	SS-2	24.7-26.7	CL					31	16
	SS-5	30.7-32.7	SP-SC	0.0	90.9	5.4	3.7		
SWB-4-02	SS-2	23.8-25.8	ML	0.0	40.5	55.3	4.2		
	SS-3	26.3-28.3	CH					58	24
SWB-5-02	SS-4	21.8-23.8	CL	0.0	4.0	54.1	41.9	37	19
SWB-7-02	SS-2	22.8-24.8	CL	0.0	4.0	46.6	49.4	40	17
SWB-8-02	SS-1	16.8-18.8	SM	0.0	52.4	43.8	3.8		
	SS-3	20.8-22.8	CL					38	19
SWB-10-02	SS-2	22.0-24.0	CL	0.0	4.4	50.3	45.3	36	16
SWB-11-02	SS-2	25.2-27.2	ML	0.3	33.7	62.8	3.2		
	SS-4	29.2-31.2	CH					67	27
SWB-12-02	SS-2	21.1-23.1	CL	0.0	3.6	44.8	51.6	41	18
SWB-13-02	PS-2	27.0-32.0	CH					62	27
SWB-16-02	HA-4	29.1-30.6	CH					55	25
SWB-17-02	HA-2	24.5-25.4	CL					43	20
SWB-19-02	PS-1	22.2-26.4	CL					38	23
SWB-21-02	PS-2	23.7-26.6	CL					37	19

Notes:

1. Soil samples were obtained by Patrick Engineering Inc. during July and August, 2002. Samples were obtained using either conventional drilling equipment and split-spoon samplers or Eijkelkamp hand-auger and piston samplers. Physical testing was performed at Patrick Engineering's in-house soils laboratory, Lisle, Illinois, in accordance with ASTM Methods D 422 (Sieve Analysis with Hyrdrometer) and D 4318 (Atterberg Limits).

2. Soil Class is in accordance with *Unified Soil Classification System* , ASTM D2487, e.g., OL is organic clay and organic silt, SM is silty sand, ML is silt, CL is lean clay, and CH is fat clay. Refer to Boring Logs for detailed descriptions of soils encountered at each boring location.

3. Sample depth is depth below Canal water elevation.

TABLE 3
Summary of Soil Sample Chemical Analytical Testing Results
Indiana Harbor and Canal Confined Disposal Facility
South Cutoff Wall Investigation

Boring No.	**SED-1-02**	**SED-2-02**	**SED-3-02**	**SED-4-02**	**SED-5-02**	**IDEM Default Closure Limit[2]**
Sample No.	PS-1	PS-1	PS-1	PS-1	PS-1	
Soil Class[3]	OL	OL	OL,SM	OL, SP-SM	OL, SP	
PCB Compounds						
Aroclor 1016	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1221	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1232	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1242	2.80	5.77	9.18	0.844	2.05	---
Aroclor 1248	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1254	<0.25	<0.20	<0.20	<0.20	<0.20	---
Aroclor 1260	1.21	1.10	1.56	0.211	0.546	---
Total PCBs	**4.01**	**6.87**	**10.74**	**1.055**	**2.596**	**5.3**

Notes:

1. Soil samples were obtained by Patrick Engineering Inc. on July 18, 2002, using Eijkelkamp hand-auger and piston sampler. Samples were composite samples made from the upper 2 feet of soils encountered at the bottom of the Lake George Canal. Chemical analyses were performed by First Environmental Laboratories, Naperville, Illinois, in accordance with SW846 Method No. 3540C/8082. Results are expressed as milligrams per kilogram (mg/kg).

2. Indiana Department of Environmental Management (IDEM) Default Closure Limit is from *Risk-Integrated System of Closure (RISC) Technical Guide and Users Guide*, Appendix 1, Table A (Industrial Sites).

3. Soil Class is in accordance with *Unified Soil Classification System*, ASTM D2487, e.g., OL is organic clay and organic silt, SM is silty sand, and SP is poorly graded sand. Refer to Boring Logs for detailed descriptions of soils encountered at each boring location.

4. Shaded value identifies result that exceeds the *RISC* Default Closure Limit.

Table A Default Closure Table - Industrial July 20, 2001

Constituent	Soil									Ground Water				
	Soil Attenuation Capacity mg/kg	Soil Saturation mg/kg	Construction (mg/kg)		Direct (mg/kg)		Migration to G W (mg/kg)		Default Closure Level (mg/kg)	Solubility (mg/l)	MCL (mg/l)	Industrial (mg/l)		Default Closure Level (mg/l)
Methyl ethyl ketone (MEK)	6000/2000	35,000	130,000	NC	28,000	NC	260	NC	260	270,000		61	NC	61
4-methyl-2-pentanone (MIBK)	6000/2000	4,100	7,200	NC	1,400	NC	39	NC	39	19,000		8.2	NC	8.2
2-Methylphenol(o-cresol) [6]	6000/2000		39,000	NC	17,000	NC	39	NC	39	26,000		5.1	NC	5.1
3-methylphenol (m-cresol) [6]	6000/2000	8,900	44,000	NC	25,000	NC	30	NC	30	23,000		5.1	NC	5.1
4-methylphenol (p-cresol) [6]	6000/2000		4,400	NC	2,500	NC	3.0	NC	3.0	22,000		0.51	NC	0.51
Methyl tertiary butyl ether (MTBE)	6000/2000	32,000	38,000	C	330	C	5.6	C	5.6	48,000		0.72	C	0.72
Naphthalene	6000/2000		17,000	NC	8,000	NC	170	NC	170	31		2.0	NC	2.0
Nickel[6]	10,000		23,000	NC	31,000	NC	2,700	C	2,700			2.0	NC	2.0
2-nitroaniline	6000/2000		51	NC	28	NC	0.029	NC	0.029	290		0.0058	NC	0.0058
Nitrobenzene	6000/2000	1,000	440	NC	250	NC	0.34	NC	0.34	2,100		0.051	NC	0.051
N-Nitrosodiphenylamine[6]	6000/2000		130,000	C	2,800	C	32	C	32	35		0.58	C	0.58
N-Nitrosodi-n-propylamine[5,6]	6000/2000		89	C	2.0	C	0.0020	C	0.0020	9,900		0.00041	C	0.00041
PCBs[11]	6000/2000		16	NC	5.3	C	18	C	5.3	0.70	0.00050	0.0014	C	0.0014
Pentachlorophenol[6]	6000/2000		3,800	C	54	C	0.66	C	0.66	2,000	0.00100	0.024	C	0.024
Phenol[6]	6000/2000		460,000	NC	190,000	NC	320	NC	320	83,000		61	NC	61
Pyrene	6000/2000		27,000	NC	15,000	NC	570	NC	570	0.14		3.1	NC	0.14
Selenium[6]	10,000		5,700	NC	7,800	NC	53	NC	53		0.050	0.51	NC	0.51
Silver[6]	10,000		5,700	NC	7,800	NC	87	NC	87			0.51	NC	0.51
Styrene	6000/2000	1,500	68,000	NC	16,000	NC	720	NC	720	310	0.100	20	NC	20
1,1,2,2-Tetrachloroethane	6000/2000	2,000	960	C	8.7	C	0.11	C	0.11	3,000		0.014	C	0.014
1,1,1,2-Tetrachloroethane	6000/2000	640	7900	C	63	C	0.79	C	0.79	1,100		0.11	C	0.11
Tetrachloroethylene (PCE)	6000/2000	230	4,200	NC	110	C	0.64	C	0.64	200	0.0050	0.055	C	0.055
Thallium[6]	10,000		100	NC	140	NC	13	NC	13		0.0020	0.0092	NC	0.0092
Toluene	6000/2000	650	11,000	NC	2,200	NC	240	NC	240	530	1.0	20	NC	20
Toxaphene	6000/2000		560	C	12	C	31	C	12	0.74	0.0030	0.0026	C	0.0030
1,2,4-Trichlorobenzene	6000/2000	3,200	8,900	NC	4,900	NC	77	NC	77	300	0.070	1.0	NC	1.0
1,1,1-Trichloroethane	6000/2000	1,200	11,000	NC	2,700	NC	35	NC	35	1,300	0.20	3.6	NC	3.6
1,1,2-Trichloroethane	6000/2000	1,800	600	NC	15	C	0.30	C	0.30	4,400	0.0050	0.050	C	0.050
Trichloroethylene (TCE)	6000/2000	1,300	500	NC	72	C	3.0	C	3.0	1,100	0.0050	0.26	C	0.26
2,4,5-Trichlorophenol[6]	6000/2000		89,000	NC	49,000	NC	690	NC	690	1,200		10	NC	10
2,4,6-Trichlorophenol[6]	6000/2000		57,000	C	1,300	C	5.0	C	5.0	800		0.26	C	0.26
Vinyl acetate	6000/2000	2,700	7,600	NC	1,400	NC	430	NC	430	20,000		100	NC	100
Vinyl chloride (chloroethene)	6000/2000	1,200	56	C	0.46	C	0.013	C	0.013	2,800	0.0020	0.0015	C	0.0020
Xylene mixed	6000/2000	410	34,000	NC	6,200	NC	3,400	NC	410	180	10	200	NC	180
Zinc[6]	10,000		340,000	NC	470,000	NC	38,000	NC	10,000			31	NC	31

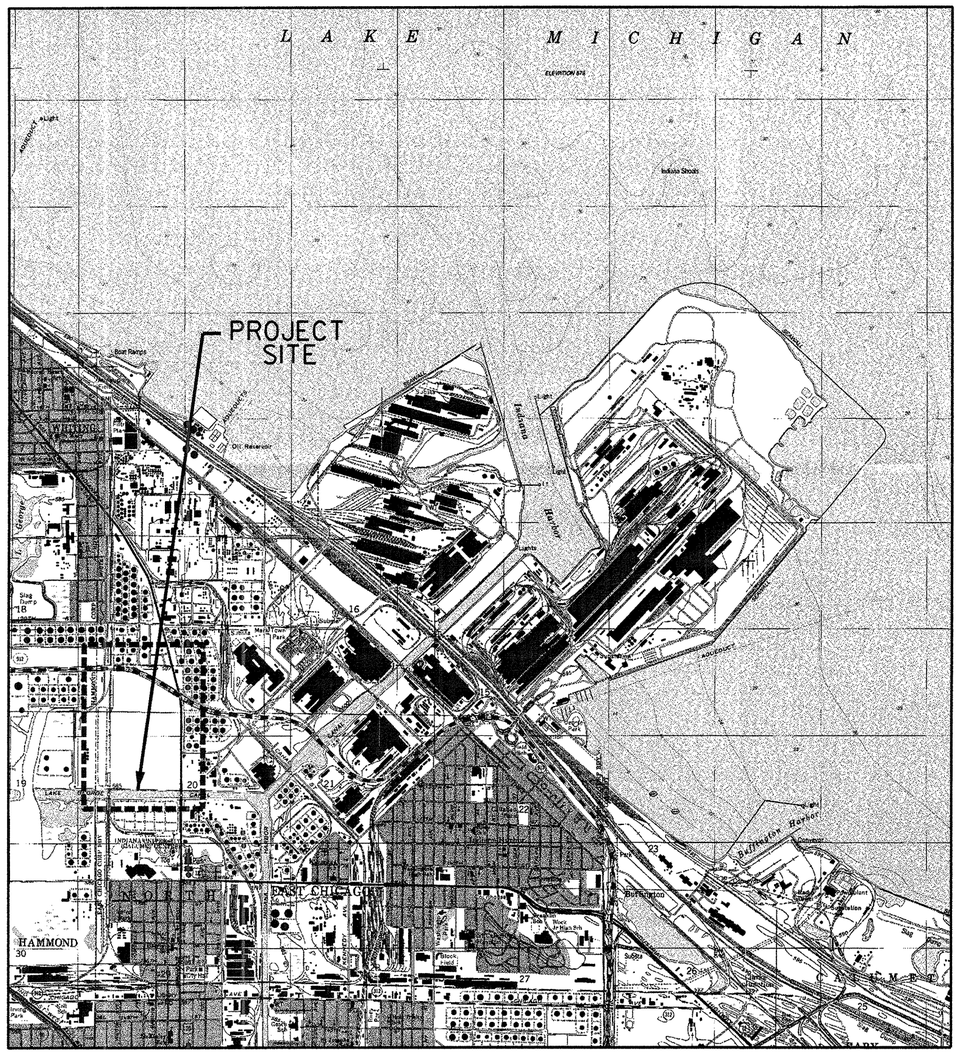
EXHIBITS

Exhibit 1 – Site Location Map

Exhibit 2 – Boring Location Plan

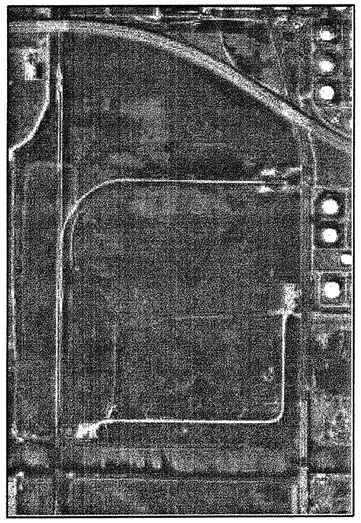
Exhibit 3 – Geologic Profile

INDIANA HARBOR CANAL
CONFINED DISPOSAL FACILITY



SITE AREA MAP
USGS Quadrangle Map
Whiting, Indiana, 1995
41087f4

-N-



SITE AERIAL
Digital Orthophoto
Whiting, Indiana, 1999
41087f4 - SW

LOCALITY MAP

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: JPD | DATE: OCTOBER 3, 2002
DRAWN BY: JPD | SCALE: N.T.S.
CHECKED BY: BRH | DRAWING CODE: 9326.01.SiteLoc.dgn
REVIEWED BY: JGB | SOLICITATION NUMBER: DACW23-01-D-0004

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

INDIANA HARBOR AND CANAL
CONFINED DISPOSAL FACILITY
SUBSURFACE INVESTIGATION
AND CUTOFF WALL

SITE LOCATION MAP

SHEET REFERENCE NUMBER:
EXHIBIT 1

PLOT DATE: 01/28/03
FILENAME: P:\LISLE\USACOE\9326\CIVIL\INDO\SITELOCATION\LOCA WRM 01/28/03

PLOT DATE: 09/28/2003
FILENAME: P:\ISLE\USACOE\9326\CIVDWG\BOR-LOC-PLN.DGN09/28/2003

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY:	SEPTEMBER 2002
DRAWN BY:	AS SHOWN
CHECKED BY:	BOR-LOC-PLN.DGN
REVIEWED BY:	SOLICITATION NUMBER:
JBB	DACW23-01-D-0004

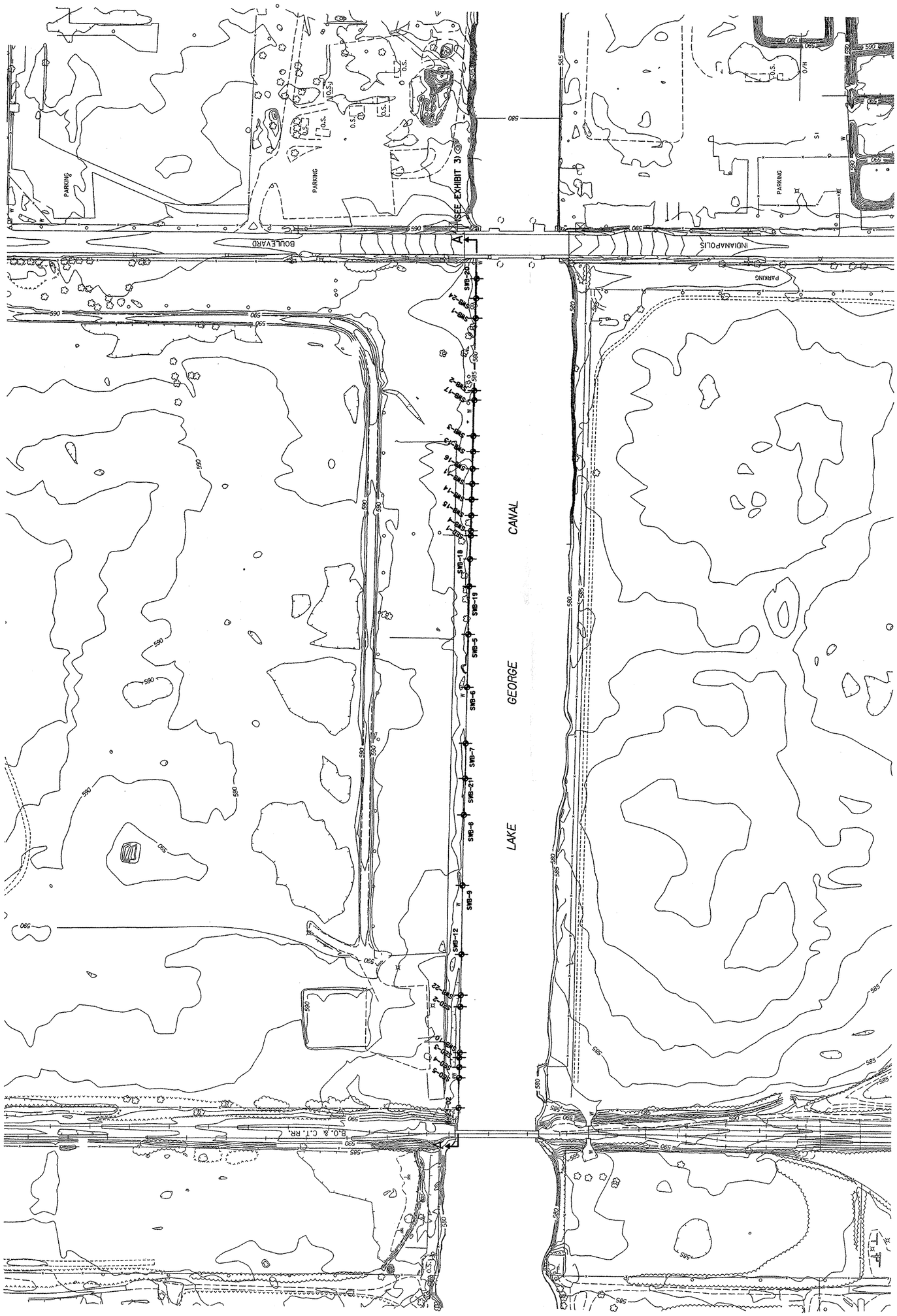
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

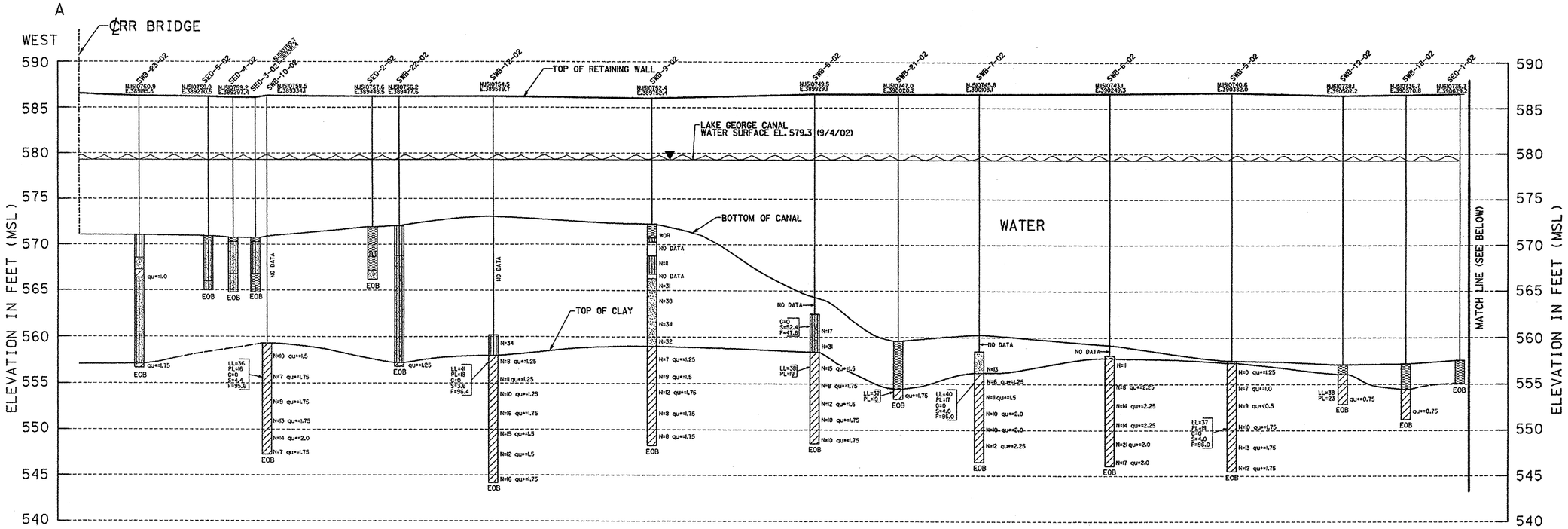
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

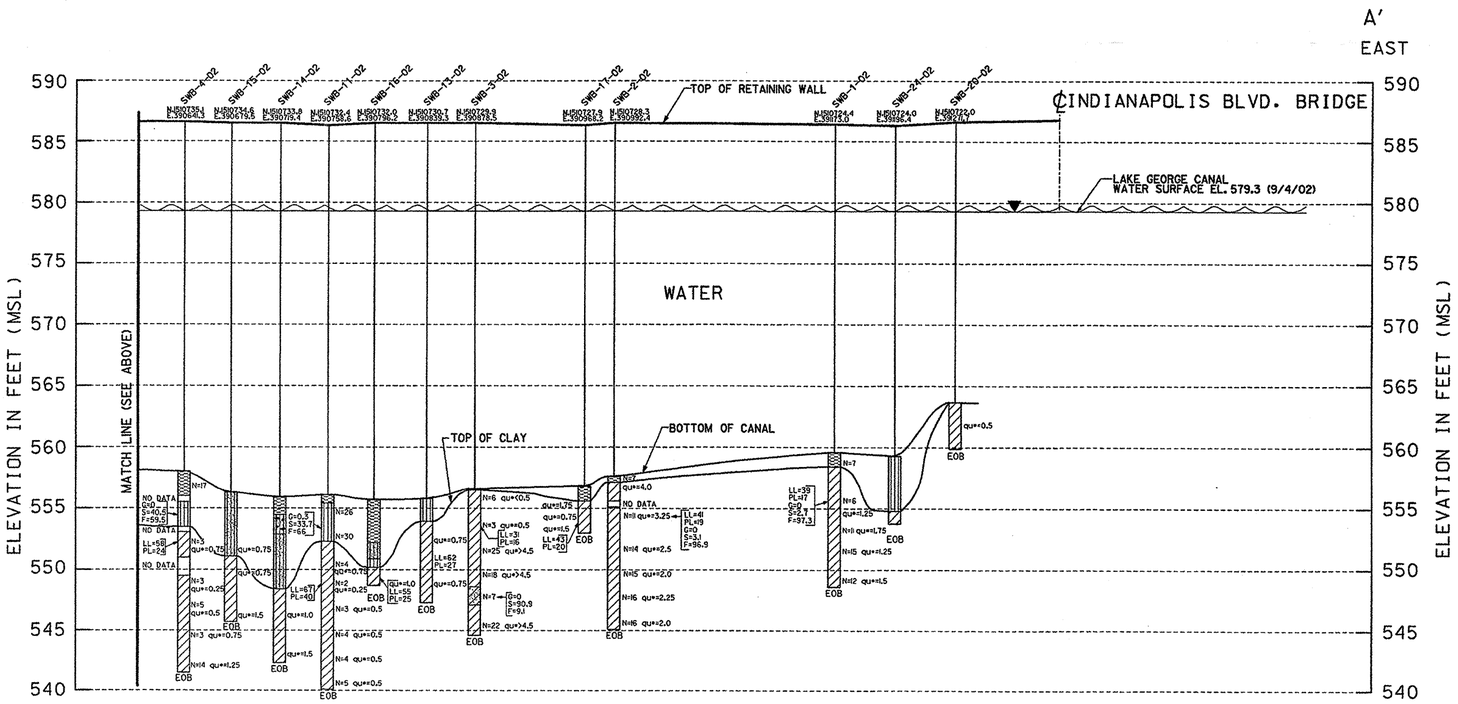
INDIANA HARBOR AND CANAL
CONFINED DISPOSAL FACILITY
SUBSURFACE INVESTIGATION
AND CUTOFF WALL

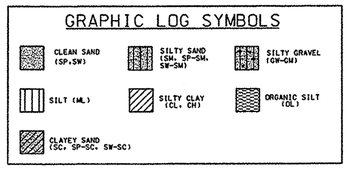
BORING LOCATION PLAN

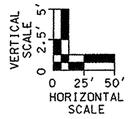
SHEET REFERENCE NUMBER:
EXHIBIT 2
SHEET 1 OF 1











US Army Corps of Engineers Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE	APPROVED

DESIGNED BY: SAL
DATE: OCTOBER 3, 2002
DRAWN BY: WRM
SCALE: AS SHOWN
CHECKED BY: SAL
DRAWING CODE: 9326LCNSECTIONJOGN
REVIEWED BY: JBB
SOLICITATION NUMBER: DACW23-01-D-0004

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

INDIANA HARBOR AND CANAL
CONFINED DISPOSAL FACILITY
SUBSURFACE INVESTIGATION
AND CUTOFF WALL

SOIL PROFILE
A-A'

SHEET REFERENCE NUMBER:
EXHIBIT 3
SHEET 1 OF 1

PLOT DATE: 01/28/2003
FILENAME: P:\USLE\USACOE\9326\CD\DWG\SECTIONJOGN WRM 01/28/2003

APPENDIX A

BORING LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

TABLE 1 SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Soil Classification: Group Symbol	Soil Classification: Group Name [B]
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No.4 sieve	Clean Gravels Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]	GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]	GP	Poorly graded gravel [F]
		Gravels with Fines More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F,G,H]
			Fines classify as CL or CH	GC	Clayey gravel [F,G,H]
	Sands 50% or more of coarse fraction passes No.4 sieve	Clean Sands Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]	SW	Well-graded sand
			$Cu < 6$ and/or $1 > Cc > 3$ [E]	SP	Poorly graded sand [I]
		Sands with Fines More than 12% fines [D]	Fines classify as ML or MH	SM	Silty sand [G,H,J]
			Fines classify as CL or CH	SC	Clayey sand [G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid Limit less than 50	Inorganic	PI>7 and plots on or above "A" line [J]	CL	Lean Clay [K,L,M]
			PI<4 or plots below "A" line	ML	Silt [K,L,M]
		Organic	Liquid limit-oven dried / Liquid limit-not dried < 0.75	OL	Organic clay [K,L,M,N]; Organic silt [K,L,M,O]
	Silts and Clays Liquid Limit 50 or more	Inorganic	PI plots on or above "A" line	CH	Fat Clay [K,L,M]
			PI plots below "A" line	MH	Elastic silt [K,L,M]
		Organic	Liquid limit-oven dried / Liquid limit-not dried < 0.75	OH	Organic clay [K,L,M,P]; Organic silt [K,L,M,Q]
Highly Organic Soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-in. (75mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols:
GW-GM well graded gravel with silt
GW-GC well graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

[D] Sands with 5 to 12% fines require dual symbols:
SW-SM well graded sand with silt
SW-SC well graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥30% plus No. 200, predominantly sand, add "sandy" to group name.

[M] If soil contains ≥30% plus No. 200, predominantly gravel, add "gravelly" to group name.

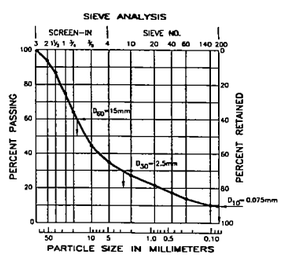
[N] PI ≥ 4 and plots on or above "A" line

[O] PI < 4 or plots below "A" line

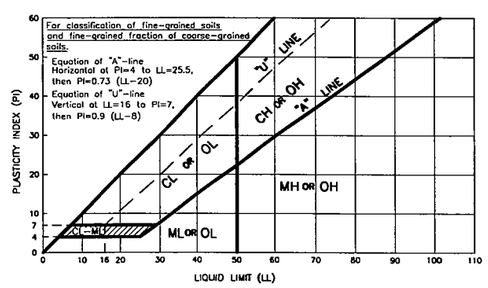
[P] PI plots on or above "A" line

[Q] PI plots below "A" line

* See Local Soil Description Terminology.



$Cc = \frac{D_{60}}{D_{10}} = \frac{15}{0.075} = 200$ $Cu = \frac{(D_{30})^2}{D_{10} \times D_{60}} = \frac{(2.5)^2}{0.075 \times 15} = 5.6$



(ASTM) D-2487-92 MODIFIED BY PATRICK ENGINEERING INC. 1996

ABBREVIATIONS USED ON BORING LOG

AU	– Sample from Auger	SPT	– Standard Penetration Test, ASTM D 1586
SS	– Split-Spoon Sampler, ASTM D 1586	N	– Summation of Last 2 SPT Values Reported on Log
ST	– Thinwall Tube Sample	q_u	– Unconfined Compressive Strength Test, ASTM D 2166
2T	– Thinwall Tube Sample 2" O.D. by 1-7/8" I.D.	$q_p = q_u$*	– Estimated Unconfined Compressive Strength (Pocket Penetrometer)
3T	– Thinwall Tube Sample 3" O.D. by 2-7/8" I.D.	γd	– Dry Unit Weight
CA	– Continuous Flight Auger	WC%=w	– Natural Water Content, ASTM D 2216
HB=HA	– Hand Auger	HW	– Steel Casing, 4" Inside Diameter
HSA	– Hollow Stem Continuous Flight Auger	occ.	– Occasional
W	– Partial Sample of Cuttings, Washed	v.	– Very
S	– Bag Sample from Test Pit, Excavation, Etc.	med.	– Medium
BX	– Rock Core 1-5/8" Diameter	RECOV.=REC.	– Sample Recovery: For SPT, 100% Recov.=18" For ST, 100% Recov.=24"
NX	– Rock Core 2-1/8" Diameter	q_u**	– Estimated Unconfined Compressive Strength Using Rimac ® Tester
CS	– Sample from Continuous Sampler		
O.D.	– Outside Diameter		
I.D.	– Inside Diameter		

PATRICK ENGINEERING INC.

LOCAL SOIL DESCRIPTION TERMINOLOGY

Soils are visually identified and classified on the boring logs and described in this report according to the Unified Soil Classification System with the following modifications:

RELATIVE DENSITY OF GRANULAR SOILS

Description	Blows/Foot
Very Loose	0 to 4
Loose	4 to 10
Medium Dense	10 to 30
Dense	30 to 50
Very Dense	50 to 80
Extremely Dense	80+

CONSISTENCY OF COHESIVE SOILS

Description	N	q_u(tsf)
Very Soft	2	0 to 0.25
Soft	2-4	0.25 to 0.50
Medium Stiff	4-8	0.5 to 1.0
Stiff	8-15	1.0 to 2.0
Very Stiff	15-30	2.0 to 4.0
Hard	30	4.0 to 8.0
Very Hard		8.0+

PARTICLE SIZES

Components		Size or Sieve No.
Boulders	–	Over 12 in.
Cobbles	–	3 to 12 in.
Gravel	– Coarse	3/4 to 3 in.
	– Fine	No. 4 to 3/4 in.
Sand	– Coarse	No. 10 to No. 4
	– Medium	No. 40 to No. 10
	– Fine	No. 200 to No. 40
Fines (Silt and Clay)	–	Below No. 200

SOIL MOISTURE

Descriptive Term	
Dry	– Dry of Standard Proctor Optimum
Moist	– Near Standard Proctor Optimum
Wet	– Wet of Standard Proctor Optimum
Saturated	– Free Water in Sample

* RELATIVE PROPORTIONS (IN LIEU OF "WITH")

Descriptive Term	% By Weight
Trace/Occ.	1 to 10
Little	10 to 20
Some	20 to 30
And**	30 to 50

* RELATIVE PLASTICITY

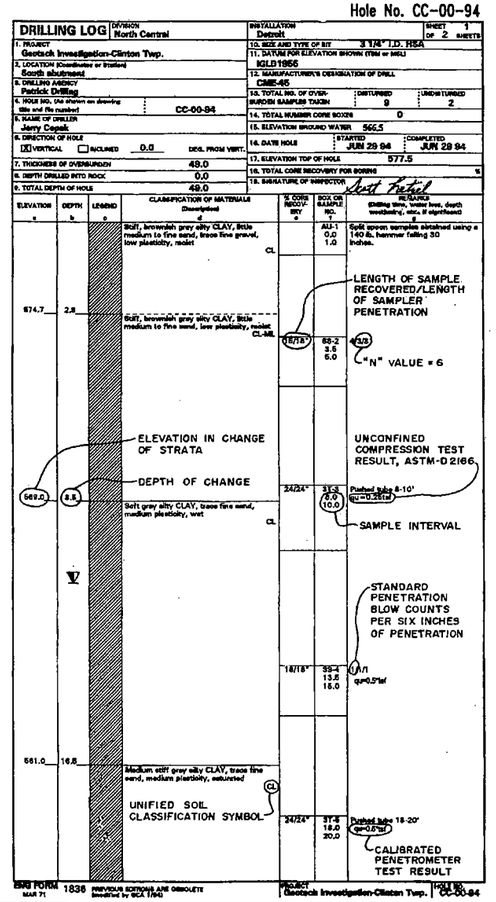
Descriptive Term		Liquid Limit
Low	{Lean}	0 to 30
Medium		30 to 50
High	(Fat)	>50

**Alternatively "sandy" or "gravelly." "Silty clay" may be utilized in lieu of "Lean" or "Fat" Clay with the appropriate plasticity modifier.

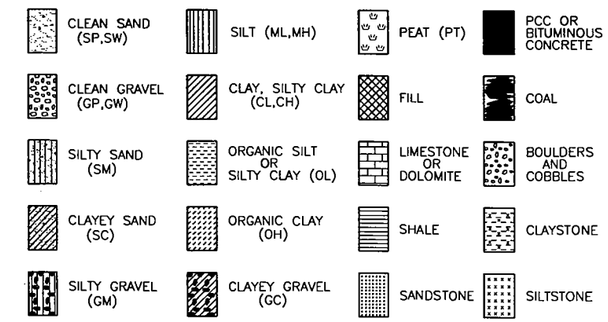
NOTE: Visual classifications are approximate.

EXAMPLE BORING LOG

Hole No. CC-00-94



GRAPHIC LOG SYMBOLS (OPTIONAL)



NOTE: Graphic log symbols may or may not be shown on the logs. Graphic symbols are shown for convenience. The typed soil descriptions and typed water level data are considered more exact than the graphic symbols.

WATER LEVEL SYMBOLS

- Water Level, During Drilling
- Water Level, After Drilling
- Water Level, After 24 Hours

SOIL COLORS

Soils are described in accordance with the:
MUNSELL SOIL COLOR CHARTS
1975 Edition, Kollmorgen Corporation
2441 North Culvert Street
Baltimore, Maryland 21218

Abbreviations for colors vary between loggers. In general the following abbreviations are used:

BLK	= Black	GR	= Gray	BL	= Blue
BRN	= Brown	GRN	= Green	PK	= Pink
YEL	= Yellow	DK	= Dark	STR	= Strong
OLV	= Olive	ORG	= Orange		

Mottling is a rust colored staining usually observed along cracks and fissures and resulting from the depositing or precipitation of iron and other natural materials. Mottling is typically found within the zone where groundwater levels have fluctuated in the past.

ROCK QUALITY DETERMINATION

The Rock Quality Determination (Deere, et. al., 1969) method of determining rock quality as reported here was obtained by summing up the total length of core recovered in each run, counting only those pieces of core which are four inches (10 cm) in length or longer and which are hard and sound. The sum is then represented as a percentage over the length of the run. If the core is broken by handling or by the drilling process, the fresh broken pieces are fitted together and counted as one piece provided that they form the requisite length of four inches (10 cm). RQD is reported as a percentage.

Relation of RQD and Rock Quality

RQD (%)	Description of Rock Quality
0 – 25	Very Poor
25 – 50	Poor
50 – 75	Fair
75 – 90	Good
90 – 100	Excellent

NOTE: Recovery denoted as REC=, is the length of core recovered in a run divided by the length of the run, reported as a percentage.

SOIL DESCRIPTION TERMINOLOGY

UNIFIED SOIL CLASSIFICATION SYSTEM
KEY TO GRAPHIC LOG SYMBOLS
KEY TO ROCK CORE DATA
EXAMPLE BORING LOG

G:\CAD\Soil-Des-Term\Army-Corps-Log.dwg WRM 11/27/02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.3 ; E 390629.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-1-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>24.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	24.2
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation.
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.3 ; E 390629.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-1-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>24.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	24.2
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.6	21.7		Bottom of Canal			
			Loose, black organic SILT, trace fine sand, saturated OL	30"/30"	PS-1 21.7 24.2	Top of retaining wall elevation is 586.6' (TRW). Depth to sediment as measured using a weighted 2-foot long slug is 29.0 feet below TRW PS-1 sample collected was composited for chemical analysis of PCB's; SED-1-02 Time: 2:18pm Date: 7/18/02 Analytical Results date reported 7/31/02 Aroclor 1016 <0.25 ppm Aroclor 1221 <0.25 ppm Aroclor 1232 <0.25 ppm Aroclor 1242 = 2.8 ppm Aroclor 1248 <0.25 ppm Aroclor 1254 <0.25 ppm Aroclor 1260 =1.21 ppm
555.1	24.2		End of Boring at 24.2' below Top of Canal			

Hole No. SED-2-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 1 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510757.6 ; E 389448.5
3. DRILLING AGENCY: Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number): SED-2-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >13.1
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 13.1
10. SIZE AND TYPE OF BIT: Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Jul 18, 02; COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation.
	5					
572.0	7.3		Bottom of Canal			
			Loose, black organic SILT, saturated OL	72"/72"	PS-1 7.3 13.1	Top of retaining wall elevation is 586.2 Bottom of canal as measured using a weighted 2-foot long slug is 14.2 feet below TRW Composite sample SED-2-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time: 1:30pm Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 5.77 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 1.1 ppm
569.1	10.2					
			Loose, gray fine SAND, trace silt, saturated SM			
568.6	10.7					
			Loose, black organic SILT, saturated OL			
567.2	12.1					
			Loose, gray fine SAND, poorly graded, saturated SP			
566.2	13.1					
			End of Boring at 13.1' below Top of Canal			
	15					
559.3	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (modified by GCA 1/94

PROJECT: IHC CDF S. Cutoff Wall Investigatio

HOLE NO. -SED-2-02

Hole No. SED-3-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 1 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510759.7 ; E 389321.4
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-3-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>14.5
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	14.5
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
570.8	8.5		Bottom of Canal			
570.4	8.9		Very loose black organic SILT, saturated OL	72"/72"	PS-1 8.5-14.5	Top of retaining wall (TRW) elevation is 586.1 Bottom of canal as measured using a weighted 2-foot long slug is 15.3' below TRW Composite sample SED-3-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time collected: 12:00pm Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 9.18 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 1.56 ppm
	10		Loose, black to gray coarse to fine SAND, trace silt, saturated SM			
566.8	12.5		Loose black organic SILT, trace wood fibers, saturated OL			
564.8	14.5		End of Boring at 14.5' below Top of Canal			
	15					
559.3	20					

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PROJECT IHC CDF S. Cutoff Wall Investigatio HOLE NO. -SED-3-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 1 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510759.2 ; E 389297.4
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-4-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>14.5
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	14.5
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc.; if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
570.8	8.5		Bottom of Canal Loose, black organic SILT, trace fine sand, saturated OL	72"/72"	PS-1 8.5 14.5	Top of retaining wall (TRW) elevation is 586.1 Bottom of canal as measured using a weighted 2-foot long slug is 15.3 feet below TRW Composite sample SED-4-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis of PCB's. Time collected: 12:30pm Date: 7/18/02 Analytical Results Reported 7.31.02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 0.844 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 0.211 ppm
569.5	9.8		Loose, black to dark gray fine SAND, poorly graded, trace silt, saturated SP-SM			
	10					
566.8	12.5		Loose, dark gray to black coarse to fine SAND, trace to little silt, saturated SM			
564.8	14.5		End of Boring at 14.5' below Top of Canal			
	15					
559.3	20					

Hole No. SED-5-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 1 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510759.9 ; E 389270.5
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SED-5-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>14.3
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	14.3
10. SIZE AND TYPE OF BIT	Hand Auger / Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
571.0	8.3		Bottom of Canal			
570.4	8.9		Loose, black organic SILT, saturated OL	72"/72"	PS-1 8.3 14.3	Top of retaining wall (TRW) elevation is 586.2 Bottom of canal as measured using a weighted 2-foot long slug is 15.2 feet below TRW Composite sample SED-5-02 was collected from the upper 2-foot portion of the sampler recovery. The sample was submitted for chemical analysis for PCB's. Time collected: 12:42p Date: 7/18/02 Analytical Results Reported 7/31/02 Aroclor 1016 <0.20 ppm Aroclor 1221 <0.20 ppm Aroclor 1232 <0.20 ppm Aroclor 1242 = 2.05 ppm Aroclor 1248 <0.20 ppm Aroclor 1254 <0.20 ppm Aroclor 1260 = 0.546 ppm
	10		Loose, gray fine SAND, poorly graded, trace silt, saturated SP-SM			
566.0	13.3		Loose, gray to black fine SAND, little organic silt, saturated SM			
565.0	14.3		End of Boring at 14.3' below Top of Canal			
	15					
559.3	20					

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PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SED-5-02

Hole No. SWB-1-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510724.4 ; E 391173.0
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-1-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.7
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.7
10. SIZE AND TYPE OF BIT	3.25" ID HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 5; UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED: Jul 16, 02; COMPLETED: Jul 16, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.6	19.7		Bottom of Canal	18/24"	SS-1	1/3/4/5

Hole No. SWB-1-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510724.4 ; E 391173.0
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-1-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.7
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.7
10. SIZE AND TYPE OF BIT	3.25" ID HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 16, 02; COMPLETED Jul 16, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss; depth weathering, etc., if significant) g
			Loose black organic SILT, trace coarse to fine sand, wet to saturated OL		19.7 21.7	N=7 Top of retaining wall elevation is 586.4 Bottom of canal as measured using a weighted 2-foot long slug is 26.8' below TRW
558.4	20.9		Stiff gray silty CLAY, trace coarse to fine sand, medium to high plasticity, moist CL			qu*=1.5 tsf - unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				18/24"	SS-2 22.7 24.7	1/3/3/5 N=6 LL=39; PL=17 - Atterberg limits G=0; S=2.7%; F=97.3% - Grain size distribution qu*=1.25 tsf
	25			21/24"	SS-3 24.7 26.7	3/5/6/7 N=11 qu*=1.75 tsf
				24/24"	SS-4 26.7 28.7	6/8/7/8 N=15 qu*=1.25 tsf
				18/24"	SS-5 28.7 30.7	3/5/7/8 N=12 qu*=1.5 tsf
	30					
548.6	30.7		End of Boring at 30.7' below Top of Canal			Borehole tremie grouted upon completion

Hole No. SWB-2-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510725.3 ; E 390992.4
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-2-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>34.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	34.2
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02 / COMPLETED Jul 22, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	-5					
	-10					
	-15					
559.3	20					

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PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SWB-2-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510725.3 ; E 390992.4
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-2-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>34.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	34.2
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02; COMPLETED Jul 22, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.6	21.7		Bottom of Canal			
557.1	22.2		Loose, black organic SILT, trace coarse to fine sand, saturated OL	18/24"	SS-1 21.7 23.7	2/4/3/6 N=7 Top of retaining wall (TRW) elevation is 586.5 Bottom of canal 28.9' below TRW as measured using a weighted 2-foot long slug qu*=4.0 tsf (Offset 56.5' W of staked location)
			Very stiff, brown to gray silty CLAY, trace coarse to fine sand, medium to low plasticity, moist CL			
	25			24/24"	SS-2 24.2 26.2	4/4/7/5 qu*=3.25 tsf Atterberg Limits: LL=41; PL=19; Particle Size Distribution: G=0; S=3.1%; F=96.9% N=11
				24/24"	SS-3 26.2 28.2	3/6/8/11 qu*= 2.50 tsf - unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer N=14
				24/24"	SS-4 28.2 30.2	4/6/9/11 qu*=2.0 tsf N=15
	30			24/24"	SS-5 30.2 32.2	5/6/10/12 qu*=2.25 tsf N=16
				24/24"	SS-6 32.2 34.2	6/7/9/10 qu*=2.0 tsf N=16
545.1	34.2		End of Boring at 34.2' below Top of Canal			Borehole tremie grouted upon completion

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510729.9 ; E 390878.5
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-3-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>34.7
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	34.7
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02; COMPLETED Jul 22, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510729.9 ; E 390878.5
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-3-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>34.7
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	34.7
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02; COMPLETED Jul 22, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	-. %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
556.6	22.7		Bottom of Canal			
556.5	22.8		Loose, black organic SILT, trace coarse to fine sand, saturated OL	24/24"	SS-1 22.7 24.7	2/3/3/2 qu*<0.5 tsf Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 29.9 feet below TRW
			Soft, gray, silty CLAY, trace coarse to fine sand, medium to high plasticity, moist, wet CL	24/24"	SS-2 24.7 26.7	1/1/2/3 qu*= 0.5 tsf Atterberg Limits; LL=31; PL=16
	25		(hard)	20/24"	SS-3 26.7 28.7	3/11/14/16 qu*>4.5 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				15/24"	SS-4 28.7 30.7	9/7/11/13 N=18 qu*= >4.5 tsf
	30					
548.6	30.7		Loose, brown to gray medium to fine SAND, poorly graded, little to trace silty clay, saturated SP-SC	15/24"	SS-5 30.7 32.7	2/3/4/4 Washed Sieve: G=0; S=90.9%; F=9.1%
547.0	32.3		Hard, gray silty CLAY, trace coarse to fine sand, medium to low plasticity, moist CL	24/24"	SS-6 32.7 34.7	8/10/12/14 qu* >4.5 tsf
544.6	34.7		End of Boring at 34.7' below Top of Canal			Borehole tremie grouted upon completion
	35					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.1 ; E 390641.3
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-4-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>37.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	37.8
10. SIZE AND TYPE OF BIT	2 15/16" Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 19, 02; COMPLETED Jul 19, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510735.1 ; E 390641.3
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-4-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>37.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	37.8
10. SIZE AND TYPE OF BIT	2 15/16' Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 19, 02; COMPLETED Jul 19, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
558.0	21.3		Bottom of Canal			
			Medium dense, black organic SILT, trace coarse to fine sand, saturated OL	18/24"	SS-1 21.3 23.3	5/8/9/12 N=17 Top of retaining wall (TRW) elevation is 586.6 Bottom of canal as measured using a weighted 2-foot long slug is 28.6 feet below TRW
555.4	23.9		Medium dense gray SILT and medium to fine sand, saturated ML	18/24"	SS-2 23.8 25.8	10/10/12/14 N=22 Washed Sieve%: G=0; S=40.5; F=59.5
	25					
553.0	26.3		Soft, gray, silty CLAY, trace coarse to fine sand, medium to high plasticity, moist CH	20/24"	SS-3 26.3 28.3	qu*=1.25 tsf 1/1/2/1 qu*=0.75 tsf Atterberg Limits LL=58; PL=24
	30			24/24"	SS-4 29.8 31.8	WOH/1/2/2 qu*=0.25 tsf
				20/24"	SS-5 31.8 33.8	2/2/3/2 qu*=0.5 tsf
				24/24"	SS-6 34.3 36.3	1/1/2/2 qu*=0.75 tsf
	35		stiff at 35.8'	18/18"	SS-7 36.3 37.8	3/4/10/15
541.5	37.8		End of Boring at 37.8' below Top of Canal			Note: Borehole tremie grouted upon completion

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510740.6 ; E 390382.0
3. DRILLING AGENCY: RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number): SWB-5-02
5. NAME OF DRILLER: Kris Norwick
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >33.8
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 33.8
10. SIZE AND TYPE OF BIT: 2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Jul 18, 02; COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Betzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510740.6 ; E 390382.0
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-5-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>33.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	33.8
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02; COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.5	21.8		Bottom of Canal			
557.3	22.0		Loose, to medium dense, black organic SILT, trace coarse to fine sand, saturated OL	18/24"	SS-1 21.8 23.8	3/4/6/7 N=10 Top of retaining wall (TRW) elevation is 586.7 Bottom of canal as measured using a weighted 2-foot long slug is 29.2 feet below TRW qu*=1.25 tsf
			Stiff, gray silty CLAY, trace coarse to fine sand, medium plasticity, moist CL	24/24"	SS-2 23.8 25.8	2/3/4/6 N=7 (set 34.0' of casing) (set down casing to 3.0' above TRW) qu*=1.0 tsf
	25		very soft to soft at 25.8'	5/24"	SS-3 25.8 27.8	3/3/6/7 N=9 qu*=<0.5 tsf
			stiff at 27.8'	22/24"	SS-4 27.8 29.8	3/4/6/11 N=10 qu*=1.75 tsf Atterberg Limits LL=37; PL=19 Hydrometer G=0; S=4%; F=96.0%
	30			20/24"	SS-5 29.8 31.8	3/6/7/11 N=13 qu*=1.75 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				24/24"	SS-6 31.8 33.8	3/5/7/10 N=12 qu*=1.75 tsf
545.5	33.8		End of Boring at 33.8' below Top of Canal			Borehole tremie grouted upon completion

Hole No. SWB-6-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510743.1 ; E 390249.3
3. DRILLING AGENCY: RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number): SWB-6-02
5. NAME OF DRILLER: Kris Norwick
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >33.2
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 33.2
10. SIZE AND TYPE OF BIT: 2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Jul 18, 02; COMPLETED: Jul 18, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Ritzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

Hole No. SWB-6-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510743.1 ; E 390249.3
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-6-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>33.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	33.2
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 18, 02 / COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.2	20.1		Bottom of Canal			
558.1	21.2					
557.8	21.5		Medium dense, black organic SILT, trace coarse to fine sand, saturated OL	24/24"	SS-1 21.2 23.2	3/5/6/9 N=11 qu*=1.25 tsf (SS-1; 1.4' - 2.0') (27.4' to top of sediment) Top of retaining wall (TRW) elevation is 586.6 Bottom of canal as measured using a 2-foot long slug is 27.4 feet below TRW (EL.559.2)
			Stiff to very stiff, gray, silty CLAY, trace coarse to fine sand, medium plasticity, moist CL	21/24"	SS-2 23.2 25.2	(started sampling at 28.5' below TRW) 1/3/5/7 qu*=2.25 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
	25			20/24"	SS-3 25.2 27.2	2/4/10/9 (set casing to 32.0' below TRW) qu*=2.25 tsf
				18/24"	SS-4 27.2 29.2	5/6/8/13 qu*=2.25 tsf
	30			18/24"	SS-5 29.2 31.2	5/10/11/15 qu*=2.0 tsf
				24/24"	SS-6 31.2 33.2	5/7/10/12 qu*=2.0 tsf
546.1	33.2		End of Boring at 33.2' below Top of Canal			

Borehole tremie grouted upon completion

Hole No. SWB-7-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510745.8 ; E 390108.1
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-7-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>32.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	32.8
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.2
16. DATE HOLE	STARTED Jul 18, 02; COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE	579.2
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzl

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
560.2	19.0		Bottom of Canal			Based on field observation, material encountered from 19-20.8' was a very soft organic silt not retained in split-spoon. No samples obtained.

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (modified by GCA 1/94

PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SWB-7-02

Hole No. SWB-7-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 2 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510745.8 ; E 390108.1
3. DRILLING AGENCY: RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number): SWB-7-02
5. NAME OF DRILLER: Kris Norwick
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >32.8
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 32.8
10. SIZE AND TYPE OF BIT: 2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.2
16. DATE HOLE: STARTED Jul 18, 02; COMPLETED Jul 18, 02
17. ELEVATION TOP OF HOLE: 579.2
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
558.4	20.8					
			Loose, gray medium to fine SAND, well-graded, trace silt, satruated SW	20/24"	SS-1 20.8 22.8	6/9/4/4 N=13 Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 26.2 feet below TRW Sampling started at 28.0' below TRW
556.4	22.8		Gray silty CLAY, trace coarse to fine sand, low plasticity, stiff to very stiff, moist CL	22/24"	SS-2 22.8 24.8	2/2/4/7 N=6 Atterberg Limits - LL=40; PL=17 Hydrometer G=0; S=4%; F=96% qu*=1.25 tsf
	25			24/24"	SS-3 24.8 26.8	3/4/7/9 N=11 qu*=1.5 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				24/24"	SS-4 26.8 28.8	3/4/6/8 N=10 qu*=2.0 tsf
				24/24"	SS-5 28.8 30.8	3/4/6/9 qu*=2.0 tsf
	30			21/24"	SS-6 30.8 32.8	2/5/7/9 N=12 qu*= 2.25 tsf
546.4	32.8		End of Boring at 32.8' below Top of Canal			Borehole tremie grouted upon completion

Hole No. SWB-8-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510749.5 ; E 389929.1
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-8-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.8
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D75 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 17, 02; COMPLETED Jul 17, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
564.3	15.0		Bottom of Canal			5/8/9/13 N=17 Top of retaining wall (TRW) elevation is 586.5 Depth to bottom of canal as measured using a weighted 2-foot long slug is 22.2 feet below TRW (EL.564.3) Boring started at 24.0' below TRW (EL=562.5) Washed Sieve: G=0; S=52.4%; F=47.6% 7/18/15/16
562.5	16.8		Medium dense to dense, gray medium to fine SAND, some silt, saturated SM	18/24"	SS-1 16.8 18.8	
				12/24"	SS-2 18.8 20.8	N=31 10/7/8/6
559.3	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (modified by GCA 1/94

PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. SWB-8-02

Hole No. SWB-8-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510749.5 ; E 389929.1
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-8-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.8
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D75 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 17, 02; COMPLETED Jul 17, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Betzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
						qu*=1.5 tsf
558.5	20.8		Stiff, gray silty CLAY, trace coarse to fine sand, medium to high plasticity, moist CL	18/24"	SS-3 20.8 22.8	Atterberg Limits LL=38; PL=19 3/3/5/7
						qu*=1.75 tsf
				18/24"	SS-4 22.8 24.8	4/5/7/9
						qu*=1.5 tsf
	25			24/24"	SS-5 24.8 26.8	4/5/5/5 (advanced casing to a total depth of 30' below TRW)
						qu*=1.75 tsf
				24/24"	SS-6 26.8 28.8	7/6/4/5
						qu*=1.75 tsf
				24/24"	SS-7 28.8 30.8	
						qu*=1.75 tsf
	30					
548.5	30.8		End of Boring at 30.8' below Top of Canal			

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510752.4 ; E 389752.4
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-9-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>31.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	31.0
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 11 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 17, 02 / COMPLETED Jul 17, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Betzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of canal			Canal water elevation
	5					
572.3	7.0		Bottom of Canal Black organic SILT, trace coarse to fine sand, very loose to loose, saturated OL	22/24"	SS-1 7.0 9.0	WOR Top of retaining wall (TRW) elevation is 586.0 Bottom of canal as measured using a weighted 2-foot long slug is 13.7 feet below TRW
570.7	8.6		Medium dense to dense gray, medium to fine SAND, well-graded, trace silt, saturated to wet SW-SM			
	10			12/24"	SS-2 10.5 12.5	3/5/6/9 N=11
				16/24"	SS-3 13.0 15.0	12/14/17/28 N=31 14/17/21/27
	15			14/24"	SS-4 15.0 17.0	N=38
				18/24"	SS-5 17.0 19.0	13/16/18/21 N=34
				16/24"	SS-6 19.0 21.0	13/15/17/21
559.3	20.0					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510752.4 ; E 389752.4
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-9-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>31.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	31.0
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 11 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 17, 02 / COMPLETED Jul 17, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.0	20.3		Medium dense to dense gray, medium to fine SAND, well-graded, trace silt, saturated to wet SW-SM			N=32
			Stiff, gray, silty CLAY, trace coarse to fine sand, medium high plasticity, moist CL	14/24"	SS-7 21.0 23.0	6/3/4/7 N=7 qu*=1.25 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				16/24"	SS-8 23.0 25.0	3/4/5/7 N=9 qu*=1.5 tsf
	25			18/24"	SS-9 25.0 27.0	3/5/7/9 Sand collapsed around casing. Casing advanced to 27.5' below top of wall. qu*=1.75 tsf N=12
				18/24"	SS-10 27.0 29.0	2/3/5/7 N=8 qu*=1.75 tsf
				20/24	SS-11 29.0 31.0	1/3/5/7 qu**=1.75 tsf N=8
	30					
548.3	31.0		End of Boring at 31.0' below Top of Canal			Borehole tremie grouted upon completion

Hole No. SWB-10-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510758.5 ; E 389334.1
3. DRILLING AGENCY: RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number): SWB-10-02
5. NAME OF DRILLER: Kris Norwick
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >32.0
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 32.0
10. SIZE AND TYPE OF BIT: 2 15/16' Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Jul 23, 02; COMPLETED Jul 23, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Holzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
571.0	8.3		Bottom of Canal			Sampling began at elevation 560 (approximately)
	10					
	15					
559.3	20.0					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510758.5 ; E 389334.1
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-10-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>32.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	32.0
10. SIZE AND TYPE OF BIT	2 15/16' Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 6 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 23, 02 / COMPLETED Jul 23, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Stiff, gray silty CLAY, trace medium to fine sand, low plasticity, moist CL	18/24"	SS-1 20.0 22.0	3/4/6/9 qu*=1.5 tsf Top of retaining wall (TRW) elevation is 586.3 Bottom of canal as measured using a weighted 2-foot long slug is 15.30 feet below TRW Started sampling at 27.0' below TRW
				24/24"	SS-2 22.0 24.0	1/3/4/6 qu*=1.75 tsf Atterberg Limits; LL=36; PL=16 Hydromter Results G=0; S=4.4%; F=95.6% N=7
	25			24/24"	SS-3 24.0 26.0	3/4/5/9 qu*=1.75 tsf N=9
				18/24"	SS-4 26.0 28.0	3/5/8/8 qu*=1.75 tsf N=13
				18/24"	SS-5 28.0 30.0	2/4/6/8 qu*=2.0 tsf N=10
	30			24/24"	SS-6 30.0 32.0	3/3/4/6 qu*=1.75 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer. N=7
547.3	32.0		End of Boring at 32.00' below Top of Canal			Borehole tremie grouted upon completion

Hole No. SWB-11-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510732.4 ; E 390758.6
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-11-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>39.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE.	39.2
10. SIZE AND TYPE OF BIT	2 15/16' Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 19, 02 / COMPLETED Jul 19, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510732.4 ; E 390758.6
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-11-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>39.2
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	39.2
10. SIZE AND TYPE OF BIT	2 15/16' Roller Bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 19, 02; COMPLETED Jul 19, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Betzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
556.1	23.2		Bottom of Canal			
			Medium dense, black organic SILT, trace coarse to fine sand, saturated OL	22/24"	SS-1 23.2 25.2	9/10/16/18
555.3	24.0		Medium dense, gray silt, some fine sand, saturated ML			Top of retaining wall (TRW) elevation is 586.3 Bottom of canal as measured using a weighted 2-foot long slug is 30.2 feet below TRW N=26.0
	25			16/24"	SS-2 25.2 27.2	17/17/13/15 N=30 G=0.3%; S=33.7%; F=66%
552.4	26.9		Medium stiff to soft gray silty CLAY, medium to high plasticity, moist CH	12/24"	SS-3 27.2 29.2	5/2/2/2 qu*=0.75 tsf N=4
	30			19/24"	SS-4 29.2 31.2	WOH/1/1/1 qu*=0.25 tsf Atterberg Limits LL=67; PL=27 N=2
				24/24"	SS-5 31.2 33.2	1/2/1/3 N=3 qu*=0.5 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
			soft at 33.2'	24/24"	SS-6 33.2 35.2	1/2/2/2 qu*=0.5 tsf N=4
	35			24/24"	SS-7 35.2 37.2	1/2/2/2 qu*= 0.5 tsf N=4
				24/24"	SS-8 37.2 39.2	1/2/3/1 qu*=0.5 tsf N=5
540.1	39.2		End of Boring at 39.2' below Top of Canal			Borehole tremie grouted upon completion

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510754.5 ; E 389579.7
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-12-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>35.1
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	35.1
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02; COMPLETED Jul 23, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Ritzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
573.1	6.2		Bottom of Canal			
	10					
	15					
560.2	19.1		Dense gray, SILT, trace fine sand, saturated ML	24/24"	SS-1 19.1 21.1	10/16/18/26 Top of retaining wall (TRW) elevation is 586.2
559.3	20.0					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510754.5 ; E 389579.7
3. DRILLING AGENCY	RDNP Drilling
4. HOLE NO. (As shown on drawing title and file number)	SWB-12-02
5. NAME OF DRILLER	Kris Norwick
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>35.1
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	35.1
10. SIZE AND TYPE OF BIT	2 15/16" roller bit
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Dietrich D50 ATV
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Jul 22, 02; COMPLETED Jul 23, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Retzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20		Dense gray SILT, trace fine sand, saturated ML			Bottom of canal as measured using a weighted 2-foot long slug is 13.15' below TRW Drilled without sampling to 26' below TRW
558.2	21.1		Stiff, gray, silty CLAY, trace coarse to fine sand, low plasticity, moist CL	18/24"	SS-2 21.1 23.1	4/4/4/6 qu*=1.25 tsf Atterberg Limits; LL=41; PL=18 Hydrometer; G=0; S=3.6; F=96.4 N=8
				20/24"	SS-3 23.1 25.1	3/4/7/8 qu*=1.25 tsf N=11
	25			24/24"	SS-4 25.1 27.1	2/4/6/9 qu*= 1.25 tsf N=10
				20/24"	SS-5 27.1 29.1	3/8/8/9 qu*= 1.75 tsf N=16
	30			20/24"	SS-6 29.1 31.1	3/6/9/10 qu*= 1.5 tsf N=15
				20/24"	SS-7 31.1 33.1	3/6/6/9 qu*=1.5 tsf N=12
				24/24"	SS-8 33.1 35.1	4/7/9/11 qu*=1.75 tsf N=16
544.2	35.1		End of Boring at 35.1' below Top of Canal			Borehole tremie grouted upon completion

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510730.7 ; E 390839.3
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SWB-13-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>32.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	32.0
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02 / COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510730.7 ; E 390839.3
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SWB-13-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>32.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	32.0
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02; COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
555.8	23.5		Bottom of Canal Black organic SILT, trace coarse to fine sand, saturated OL	42" R	PS-1 23.5 27.0	Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 30.65 feet below TRW
	25					
553.9	25.4		Medium stiff gray silty CLAY, trace coarse to fine sand, medium to high plasticity, moist CH			qu*=0.75 Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
				44" R	PS-2 27.0 32.0	qu*=0.75 Atterberg Limits LL=62; PL=27
	30					
547.3	32.0		End of Boring at 32.0' below Top of Canal			

Hole No. SWB-14-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510733.8 ; E 390719.4
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-14-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>37.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	37.0
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02 / COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510733.8 ; E 390719.4
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-14-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>37.0
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	37.0
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02; COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	20					
555.9	23.4		Bottom of Canal			
			Black organic SILT, trace coarse to fine sand, saturated OL	24/24" R	PS-1 23.4 25.4	Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 30.6 feet below TRW
554.4	24.9					
	25		Fine GRAVEL and little coarse to fine sand, trace silt, well graded, saturated GW-GM	12/12" R	BS-2 25.4 26.4	
552.9	26.4		Gray medium to fine SAND, some silt, well graded, saturated SW-SM	42/42" R	PS-3 26.4 29.9	Encountered obstruction at sediment surface offset boring location 5' east and resumed boring
	30			12/12" R	BS-4 29.9 30.9	
548.4	30.9		Gray silty CLAY, trace coarse to fine sand, medium stiff to stiff, medium plasticity, moist CL	62/73" R	PS-5 30.9 37.0	qu*=1.0 Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
	35					qu*=1.5
542.3	37.0		End of Boring at 37.0' below Top of Canal			

Hole No. SWB-15-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510734.6 ; E 390679.5
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-15-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>33.7
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	33.7
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 3 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 26, 02 / COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	-. %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

Hole No. SWB-15-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 2 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510734.6 ; E 390679.5
3. DRILLING AGENCY: Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number): SWB-15-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >33.7
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 33.7
10. SIZE AND TYPE OF BIT: Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Aug 26, 02; COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
556.2	23.1		Bottom of Canal			
			Gray medium to fine SAND and some silt, poorly graded, saturated SP-SM	55/55" R	BS-1 23.1 27.7	Top of retaining wall (TRW) elevation is 586.4. Bottom of canal as measured using a weighted 2-foot long slug is 30.2 feet below TRW
	25					
551.0	28.3			36/48" R	PS-2 27.7 31.7	qu*=0.75 tsf
			Medium stiff gray silty CLAY, trace coarse to fine sand, medium stiff, medium to high plasticity, moist CL			
	30					
				24/24" R	PS-3 31.7 33.7	qu*=1.5 tsf
545.6	33.7		End of Boring at 33.7' below Top of Canal			

Hole No. SWB-16-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510732.0 ; E 390796.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SWB-16-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02 / COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

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PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SWB-16-02

Hole No. SWB-16-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510732.0 ; E 390796.2
3. DRILLING AGENCY	Patrick Engineering Inc.
4. HOLE NO. (As shown on drawing title and file number)	SWB-16-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>30.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	30.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 27, 02 / COMPLETED Aug 27, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Petzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
555.7	23.6		Bottom of Canal			
			Loose, black organic SILT, trace coarse to fine sand, saturated OL	42/42" R	PS-1 23.6 27.1	Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 30.8 feet below TRW
	25					
552.2	27.1		Medium dense, gray coarse to fine SAND, little silt, saturated SM	14/14" R	BS-2 27.1 28.3	
551.0	28.3		Dense, gray SILT, trace fine sand, saturated ML	10/10" R	BS-3 28.3 29.1	
550.2	29.1		Stiff, gray silty CLAY, trace fine sand, medium plasticity, wet CH	18/18" R	HA-4 29.1 30.6	Atterberg Limits LL=55; PL=25 qu*=1.0 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
	30					
548.7	30.6		End of Boring at 30.6' below Top of Canal			

Hole No. SWB-17-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510727.9 ; E 390968.2
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-17-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>26.3
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	26.3
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 3 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 26, 02 / COMPLETED Aug 26, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510727.9 ; E 390968.2
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-17-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>26.3
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	26.3
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 3 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 26, 02 / COMPLETED Aug 26, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	20					
556.8	22.5		Bottom of Canal			
			Black organic SILT, trace coarse to fine sand, saturated OL	24/24" R	PS-1 22.5 24.5	Top of retaining wall (TRW) elevation is 586.3
555.6	23.7		Gray silty CLAY trace coarse to fine sand, stiff, medium plasticiy, moist CL			Bottom of canal as measured using a weighted 2-foot long slug is 29.5 feet below TRW qu*=1.75
				11/11" R	HA-2 24.5 25.4	qu*=0.75 Atterberg Limits: LL=43, PL=20
	25			11/11" R	HA-3 25.4 26.3	qu*=1.5
553.0	26.3		End of Boring at 26.3' below Top of Canal			

Hole No. SWB-18-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510736.7 ; E 390570.8
3. DRILLING AGENCY: Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number): SWB-18-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >28.1
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 28.1
10. SIZE AND TYPE OF BIT: Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Aug 28, 02; COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510736.7 ; E 390570.8
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-18-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>28.1
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	28.1
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.2	22.1		Bottom of Canal Black organic SILT, trace coarse to fine sand, saturated ML	72/72" R	PS-1 22.1 28.1	Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 29.3 feet below TRW
554.2	25.1		Gray silty CLAY, trace coarse to fine sand, medium stiff, medium to high plasticity, moist CL			qu*=0.75 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
551.2	28.1		End of Boring at 28.1' below Top of Canal			

Hole No. SWB-19-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510738.1 ; E 390502.2
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-19-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>26.4
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	26.4
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.3	20					

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 2 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510738.1 ; E 390502.2
3. DRILLING AGENCY: Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number): SWB-19-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >26.4
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 26.4
10. SIZE AND TYPE OF BIT: Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Aug 28, 02; COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20					
557.1	22.2		Bottom of Canal			
			Black organic SILT, trace coarse to fine sand, saturated OL	50/50" R	PS-1 22.2 26.4	Top of retaining wall (TRW) elevation is 586.4 Bottom of canal as measured using a weighted 2-foot long slug is 29.3 feet below TRW qu*=0.75 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer Atterberg Limits: LL=38; PL=23, from clay
556.1	23.2		Gray silty CLAY trace coarse to fine sand, medium stiff, medium to high plasticity, moist CL			
	25					
552.9	26.4		End of Boring at 26.4' below Top of Canal			

Hole No. SWB-20-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 1 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510722.0 ; E 391271.7
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-20-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>19.8
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	19.8
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 26, 02 / COMPLETED Aug 26, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
563.4	15.9		Bottom of Canal Soft gray silty CLAY, trace coarse to fine sand, soft to medium stiff, medium plasticity, moist CL	46/46" R	PS-1 15.9 19.8	Top of retaining wall (TRW) elevation is 586.3 Bottom of canal as measured using a weighted 2-foot long slug is 22.95 feet below TRW qu*=0.5 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
559.5	19.8		End of Boring at 19.8' below Top of Canal			

Hole No. SWB-21-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510747.0 ; E 390020.2
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-21-02
5. NAME OF DRILLER	Letzel/Gilszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>26.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	26.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.6	19.7		Bottom of Canal	48/48" R	PS-1	

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PROJECT: IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SWB-21-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510747.0 ; E 390020.2
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-21-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>26.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	26.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 28, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20		Black organic SILT, trace coarse to fine sand, saturated OL		19.7 23.7	Top of retaining wall (TRW) elevation is 586.5 Bottom of canal as measured using a weighted 2-foot long slug is 26.9 feet below TRW
				35/35" R	PS-2 23.7 26.6	
554.5	24.8					
	25		Stiff gray silty CLAY, trace coarse to fine sand, stiff, medium plasticity, moist CL			Atterberg Limit LL=37; PL=19 qu*=1.75 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
552.7	26.6		End of Boring at 26.6' below Top of Canal			

Hole No. SWB-22-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510756.2 ; E 389477.6
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-22-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>22.5
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	22.5
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
572.1	7.2		Bottom of Canal			
			Black organic SILT, trace coarse to fine sand, saturated OL	62/62" R	PS-1 7.2 12.3	Top of retaining wall (TRW) elevation is 586.2 Bottom of canal as measured using a weighted 2-foot long slug is 14.1 feet below TRW
	10					
568.8	10.5		Gray medium to fine SAND, some silt, well graded SW-SM			
				108/108" R	BS-2 12.3 21.3	
	15					
559.3	20.0					

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PROJECT IHC CDF S. Cutoff Wall Investigatio | HOLE NO. -SWB-22-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510756.2 ; E 389477.6
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-22-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>22.5
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	22.5
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 28, 02 / COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20		Gray medium to fine SAND, some silt, well graded SW-SM	18/18" R	PS-3 20.6 22.1	
557.2	22.1					
556.8	22.5		Stiff gray silty CLAY, trace coarse to fine sand, medium plasticity, moist CL	5/5" R	PS-4 ~~22.1~~ 22.5	qu*=1.25 tsf Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
			End of Boring at 25.5' below Top of Canal			

Hole No. SWB-23-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	1 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510760.9 ; E 389195.8
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-23-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>22.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	22.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 3 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 29, 02 / COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
571.1	8.2		Bottom of Canal			
			Black orgainic SILT, trace coarse to fine sand, saturated ML	60/60" R	PS-1 8.2 13.2	Top of retaining wall (TRW) elevation is 586.3 Bottom of canal as measured using a weighted 2-foot long slug is 15.2 feet below TRW
	10					
568.6	10.7		Dark gray coarse to fine SAND, trace fine gravel, well graded, saturated SW			
567.3	12.0		Stiff gray silty CLAY, trace coarse to fine sand, medium stiff to stiff, medium plasticity, moist CL			qu*=1.0
566.4	12.9		Gray fine SAND, trace coarse to fine gravel, trace silt, saturated SM	108/108" R	BS-2 13.2 22.2	
	15					
559.3	20					

Hole No. SWB-23-02

DRILLING LOG

DIVISION	Lakes & Rivers
INSTALLATION	Chicago District
SHEET	2 OF 2 SHEETS
1. PROJECT	IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station)	N 1510760.9 ; E 389195.8
3. DRILLING AGENCY	Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number)	SWB-23-02
5. NAME OF DRILLER	Letzel/Gliszewski
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	>22.6
8. DEPTH DRILLED INTO ROCK	0
9. TOTAL DEPTH OF HOLE	22.6
10. SIZE AND TYPE OF BIT	Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL	Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 3 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	579.3
16. DATE HOLE	STARTED Aug 29, 02 / COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE	579.3
18. TOTAL CORE RECOVERY FOR BORING	- %
19. SIGNATURE OF INSPECTOR	Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	20					
557.1	22.2					
556.7	22.6		Stiff gray silty CLAY, trace coarse to fine sand, medium plasticity, moist CL	5/15" R	AU-3 ~~22.2~~ 22.6	qu*=1.75 Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer
			End of Boring at 22.6' below Top of Canal			

Hole No. SWB-24-02

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 1 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510724.0 ; E 391196.4
3. DRILLING AGENCY: Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number): SWB-24-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >25.2
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 25.2
10. SIZE AND TYPE OF BIT: Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Aug 29, 02; COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
579.3	0		Top of Canal			Canal water elevation
	5					
	10					
	15					
559.6	19.7		Bottom of Canal	54/54" R	PS-1	

DRILLING LOG

DIVISION: Lakes & Rivers

INSTALLATION: Chicago District

SHEET 2 OF 2 SHEETS

1. PROJECT: IHC CDF S. Cutoff Wall Investigation
2. LOCATION (Coordinates or Station): N 1510724.0 ; E 391196.4
3. DRILLING AGENCY: Patrick Engineering Inc
4. HOLE NO. (As shown on drawing title and file number): SWB-24-02
5. NAME OF DRILLER: Letzel/Gliszewski
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: >25.2
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 25.2
10. SIZE AND TYPE OF BIT: Hand Auger/Piston Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL (NGVD 29)
12. MANUFACTURER'S DESIGNATION OF DRILL: Eijkelkamp Hand Auger Equipment
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: 579.3
16. DATE HOLE: STARTED Aug 29, 02; COMPLETED Aug 29, 02
17. ELEVATION TOP OF HOLE: 579.3
18. TOTAL CORE RECOVERY FOR BORING: - %
19. SIGNATURE OF INSPECTOR: Scott Letzel

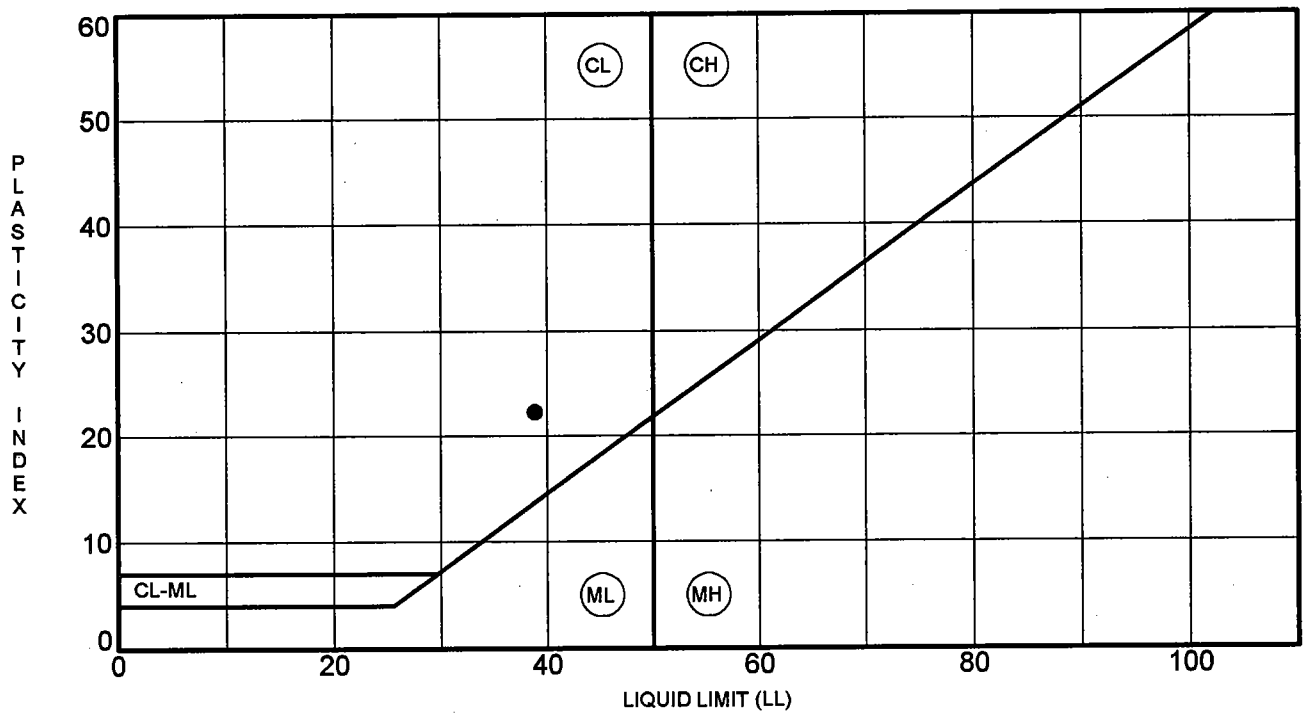
ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
559.3	20		Black organic SILT, trace coarse to fine sand, saturated OL		19.7 24.2	Top of retaining wall (TRW) elevation is 586.6 Bottom of canal as measured using a weighted 2-foot long slug is 27.0 feet below TRW
555.1	24.2		Medium stiff gray silty CLAY, trace coarse to fine sand, medium stiff to stiff, medium plasticity, moist CL	4/4" R 9/9" R	PS-2 ~~HA-3~~	PS-2 (24.2-24.5) qu*=1.25 tsf
554.1	25.2		End of Boring at 25.2' below Top of Canal		24.5 25.2	Unconfined compressive strength (tsf) as measured by hand-held calibrated penetrometer

APPENDIX B

LABORATORY PHYSICAL TESTING RESULTS

ATTERBERG LIMITS RESULTS
GRADATION CURVES

ATTERBERG LIMITS RESULTS



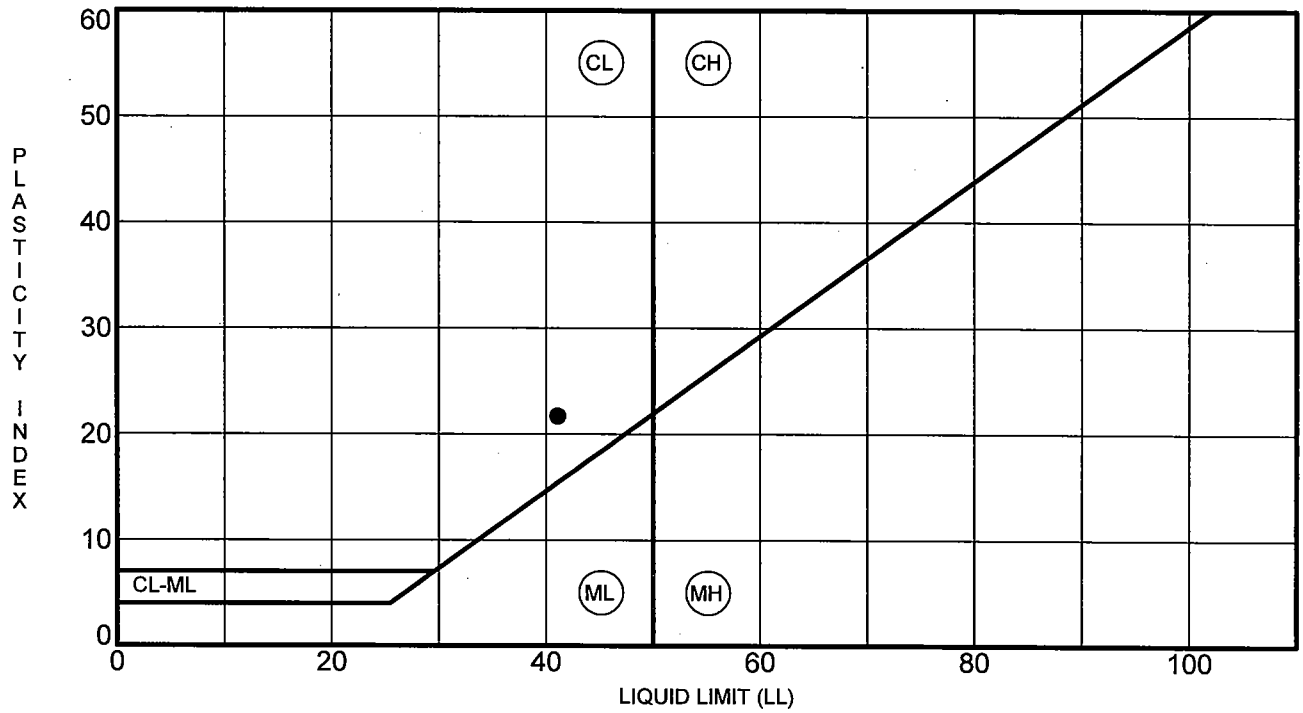
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-1-02**	**39**	**17**	**22**	**97.3**	Gray Silty Clay CL
	SS-2 22.7-24.7					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-2-02**	**41**	**19**	**22**	96.9	Gray Silty Clay CL
	SS-2 24.2-26.2					

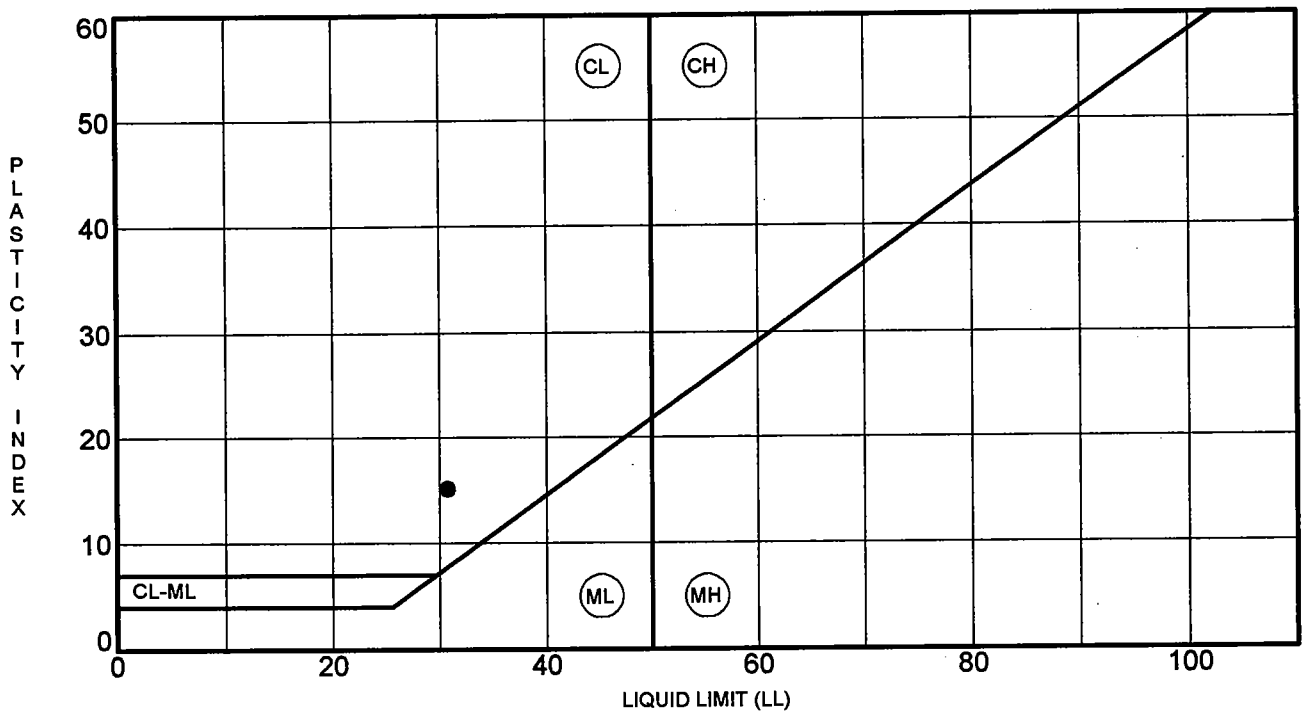
PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**

DATE **01/16/03**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



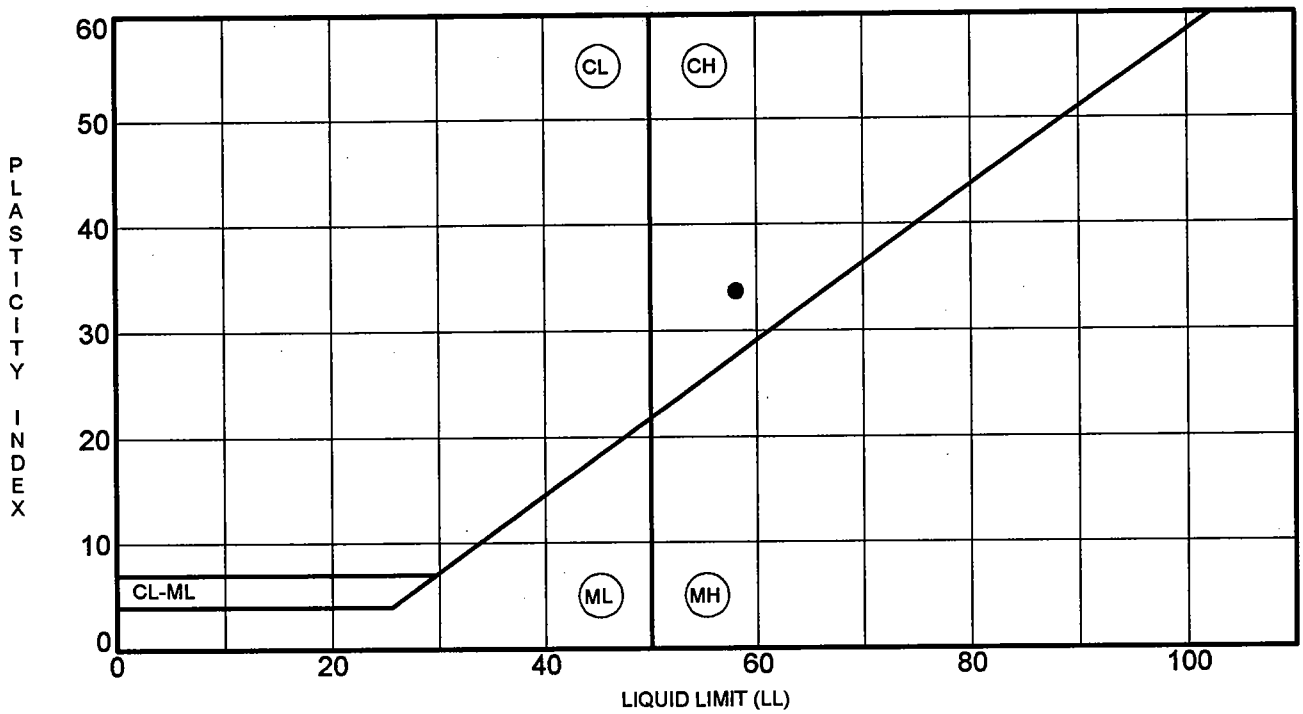
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-3-02**	**31**	**16**	**15**		Gray Silty Clay CL
	SS-2 24.7-26.7					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



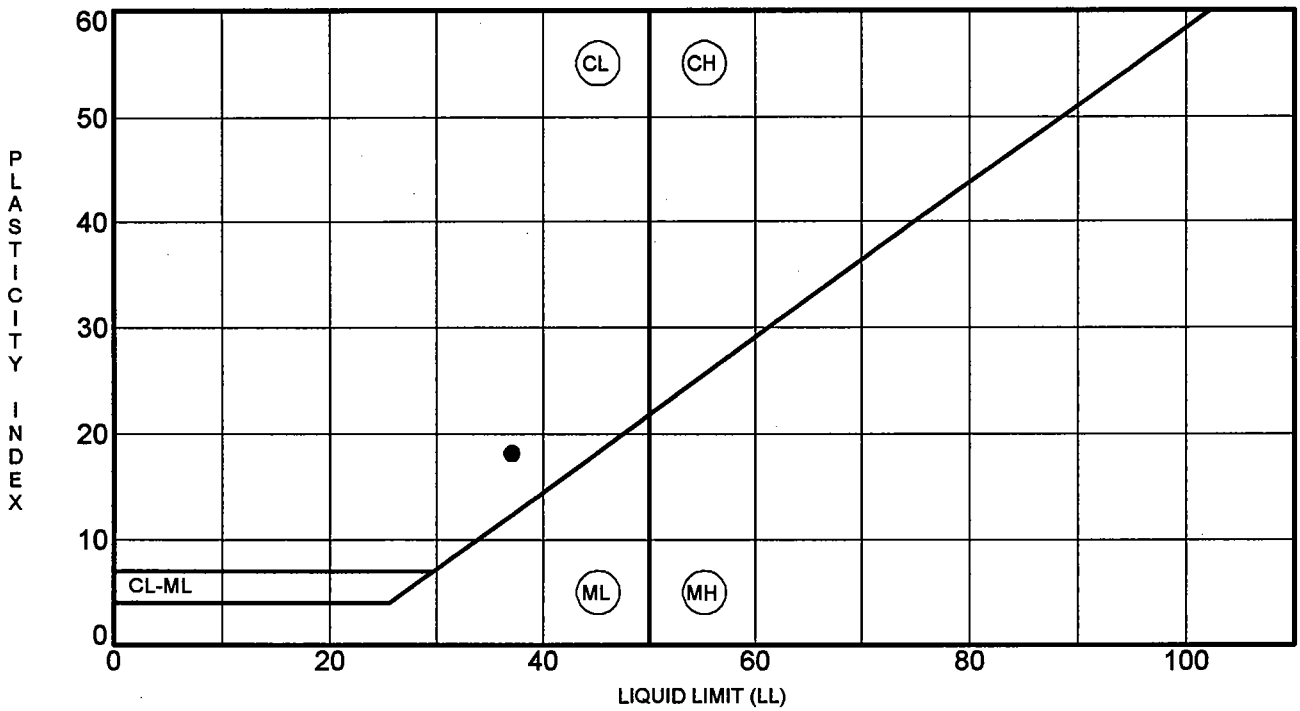
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-4-02 36.0**	**58**	**24**	**34**		Gray Silty Clay CH
	SS-3 26.3-28.3					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



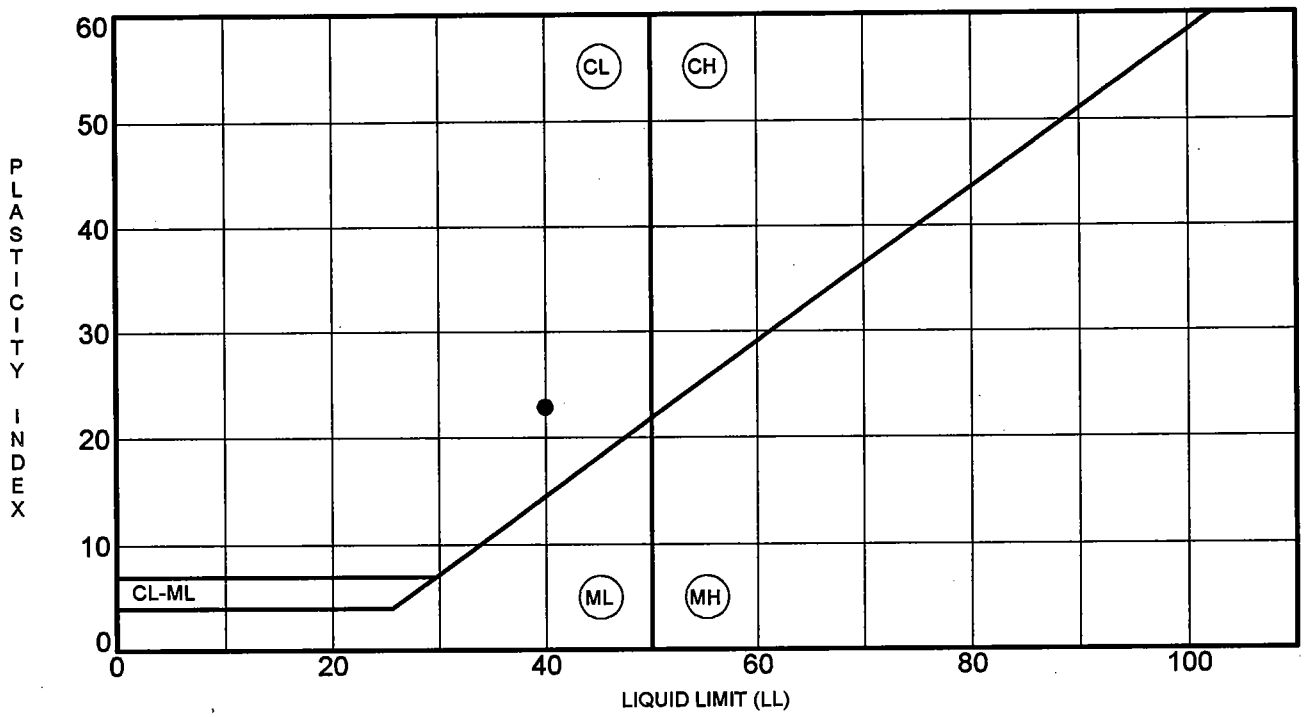
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-5-02**	**37**	**19**	**18**	**96.0**	Gray Silty Clay CL
	SS-4 21.8-23.8					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



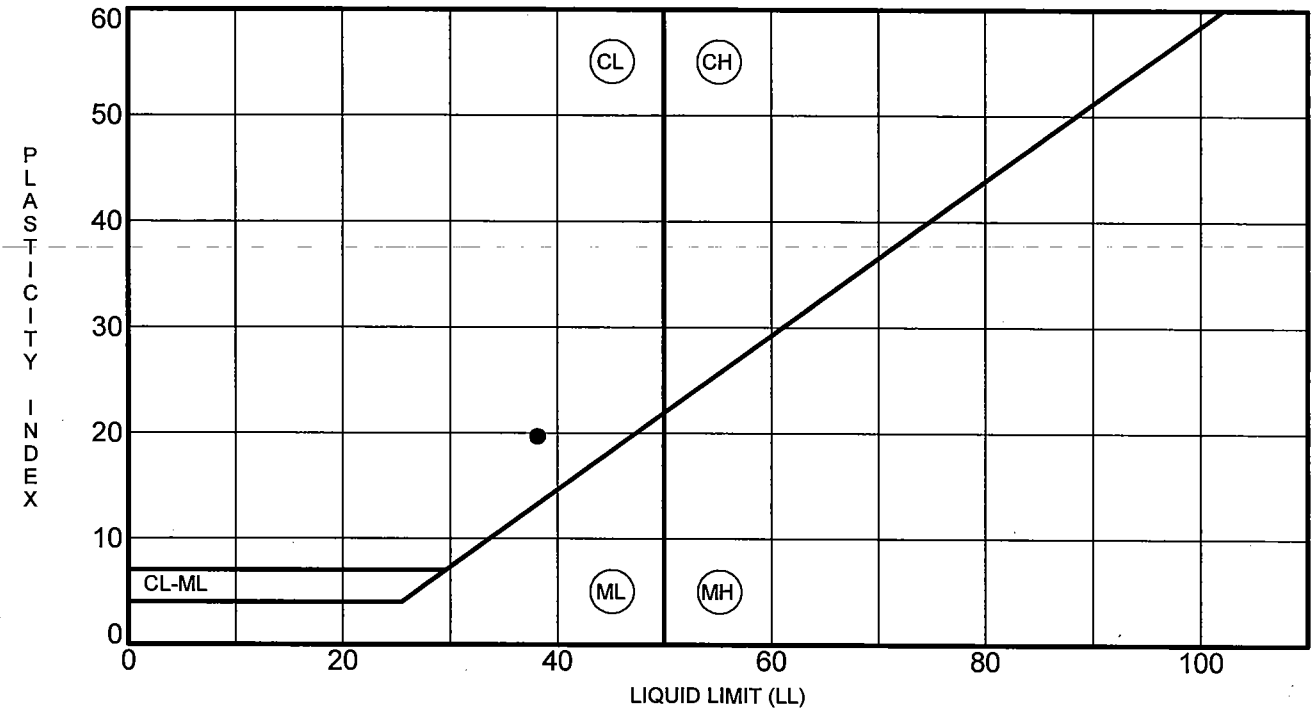
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-7-02**	**40**	**17**	**23**	**96.0**	Gray Silty Clay CL
	SS-2 22.8-24.8					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-8-02**	**38**	**19**	19		Gray Silty Clay CL
	SS-3 20.8-22.8					

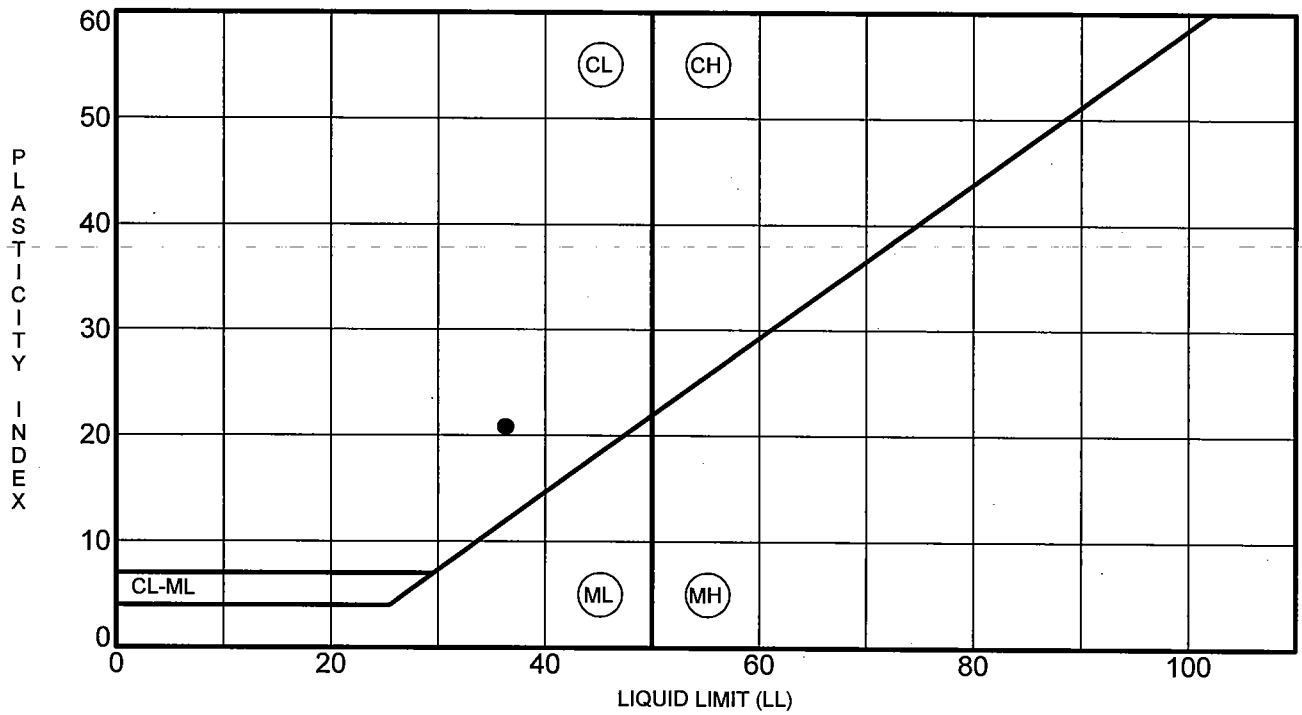
PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**

DATE **01/16/03**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-10-02**	**36**	**16**	20	**95.6**	Gray Silty Clay CL
	SS-2 22.0-24.0					

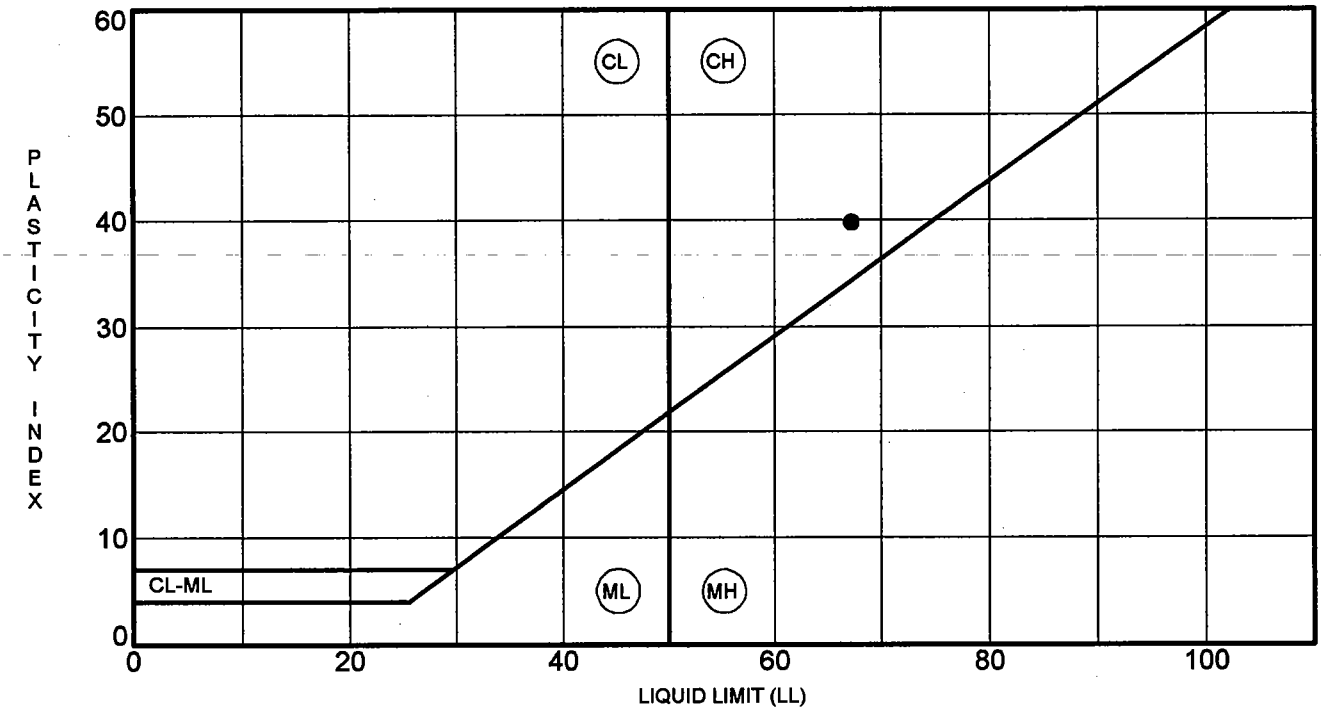
PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**

DATE **01/16/03**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



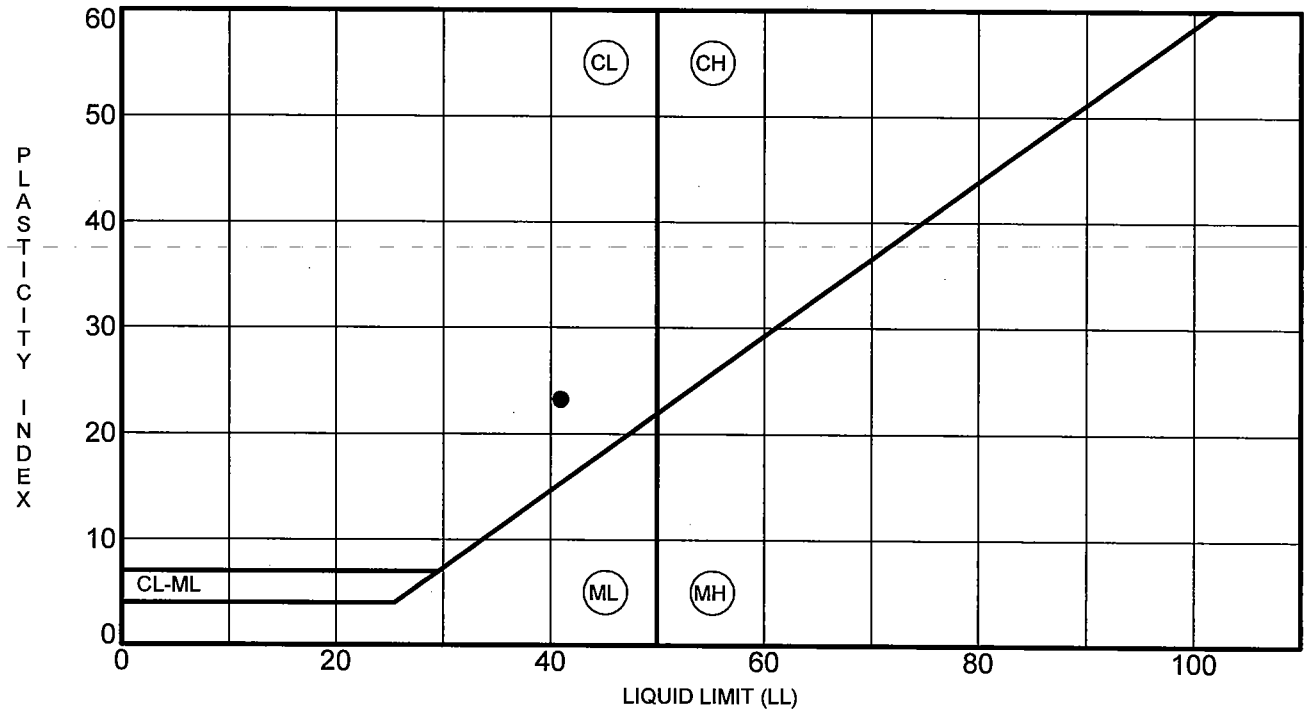
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-11-02**	**67**	**27**	**40**		Gray Silty Clay CH
	SS-4 29.2-31.2					

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-12-02**	**41**	**18**	**23**	96.4	Gray Silty Clay CL
	SS-2 21.1-23.1					

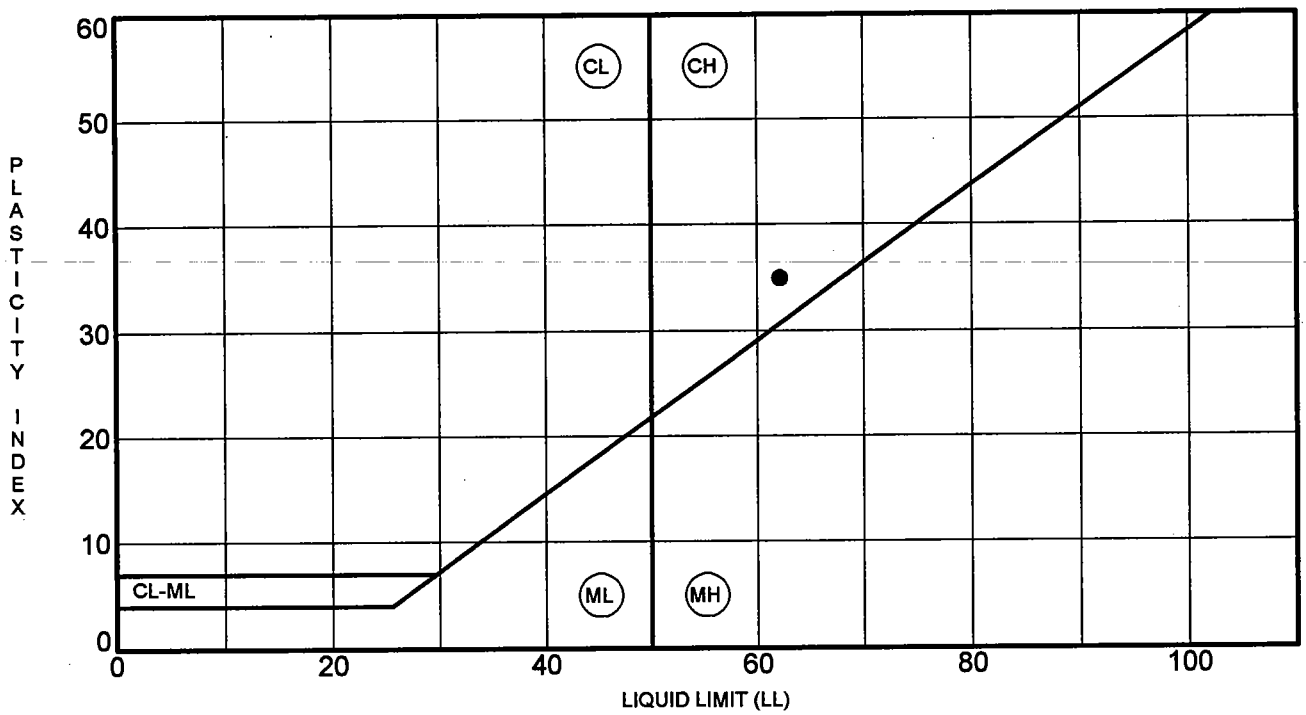
PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**

DATE **01/16/03**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



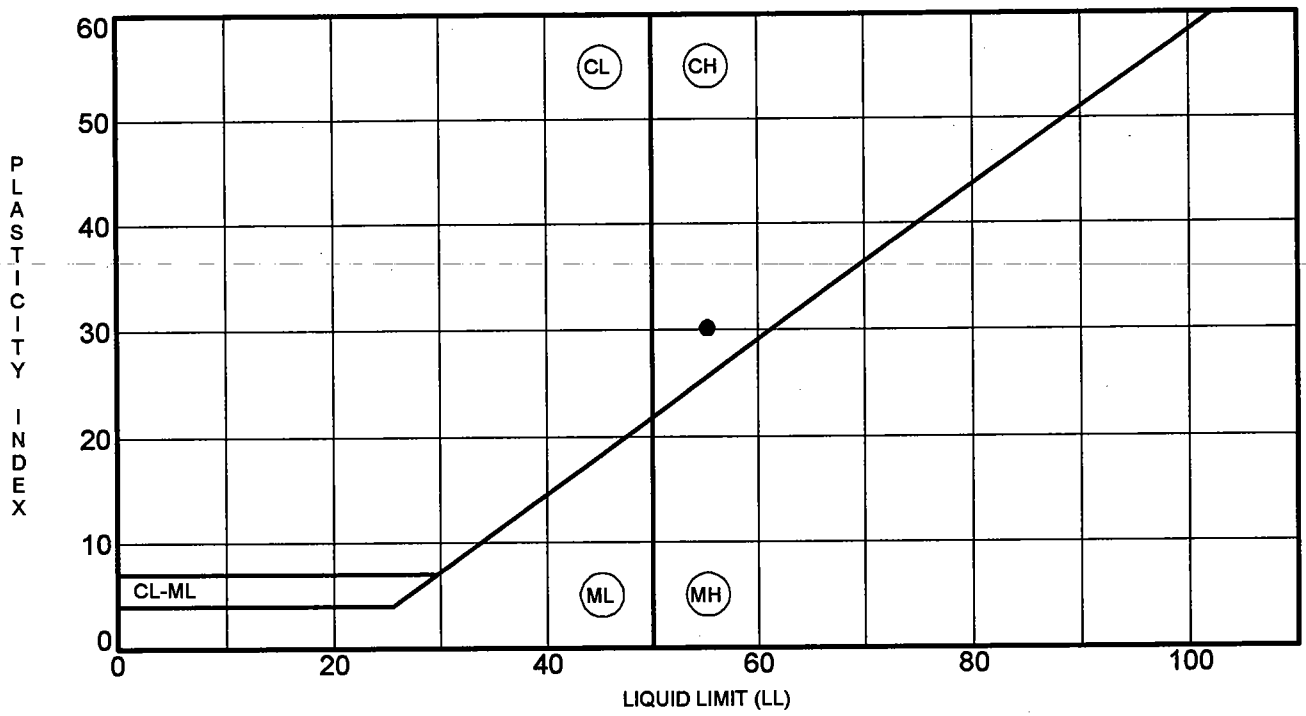
	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-13-02**	**62**	**27**	**35**		Dark Gray Silty Clay CH
	PS-2 27.0-32.0					

PROJECT **U.S. Army Corps of Engineers - Soil Borings and Sediment Sampling**

JOB NO. **9326.C1-2**
DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-16-02**	**55**	**25**	**30**		Dark Gray Silty Clay CH
	HA-4 29.1-30.6					

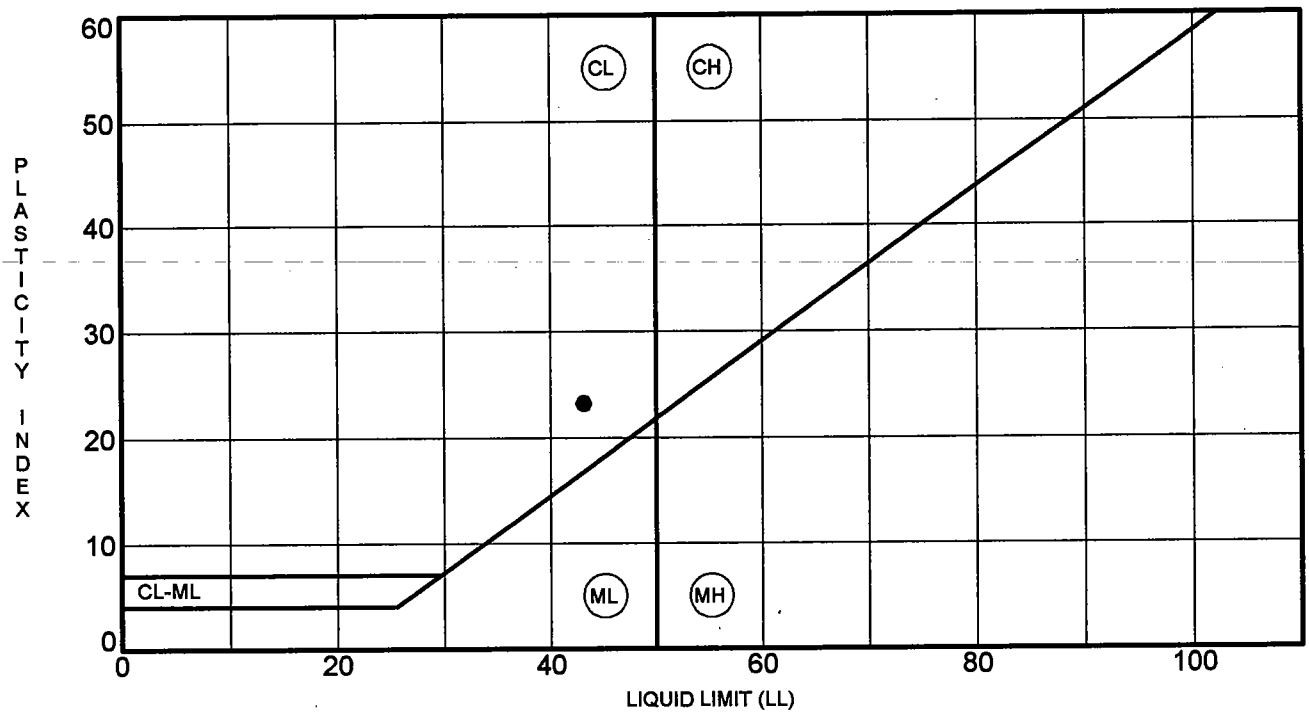
PROJECT **U.S. Army Corps of Engineers - Soil Borings and Sediment Sampling**

JOB NO. **9326.C1-2**

DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-17-02**	**43**	**20**	**23**		Light Brown Silty Clay CL
	HA-2 24.5-25.4					

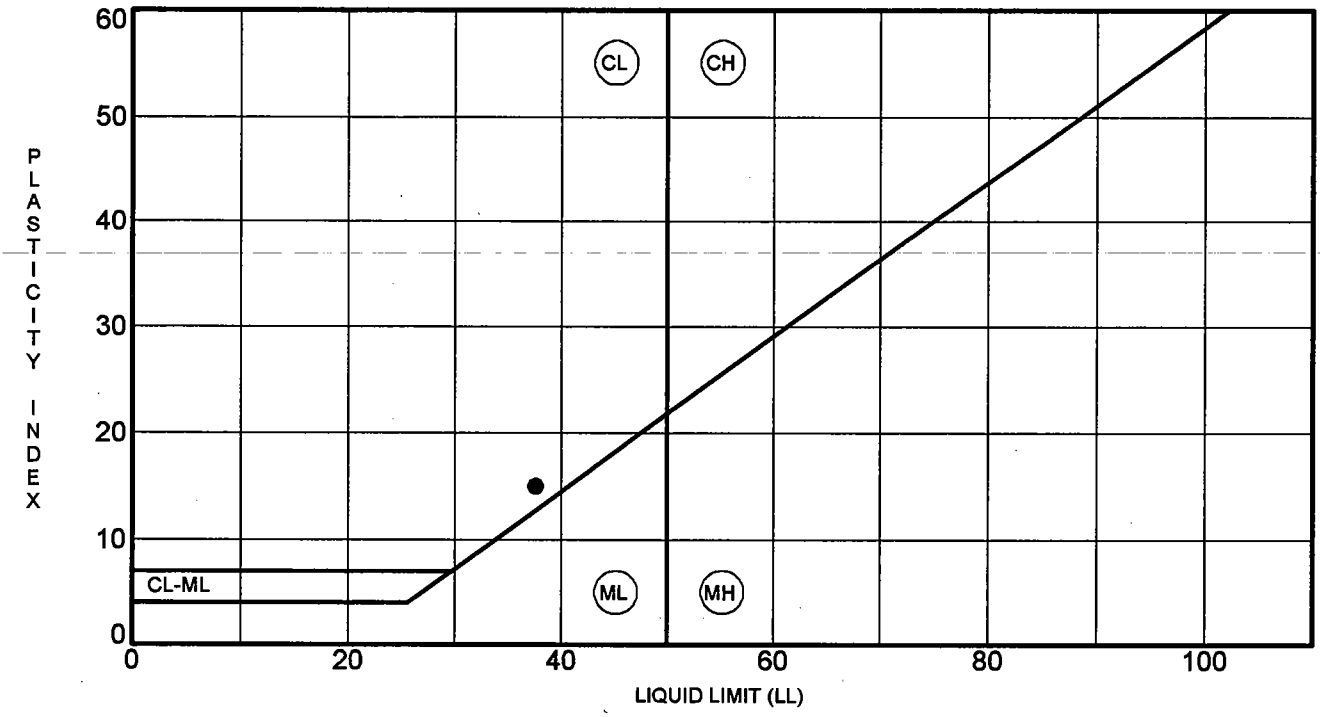
PROJECT **U.S. Army Corps of Engineers - Soil Borings and Sediment Sampling**

JOB NO. **9326.C1-2**

DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-19-02**	**38**	**23**	**15**		Dark Gray Silty Clay CL
	PS-1 22.2-26.4					

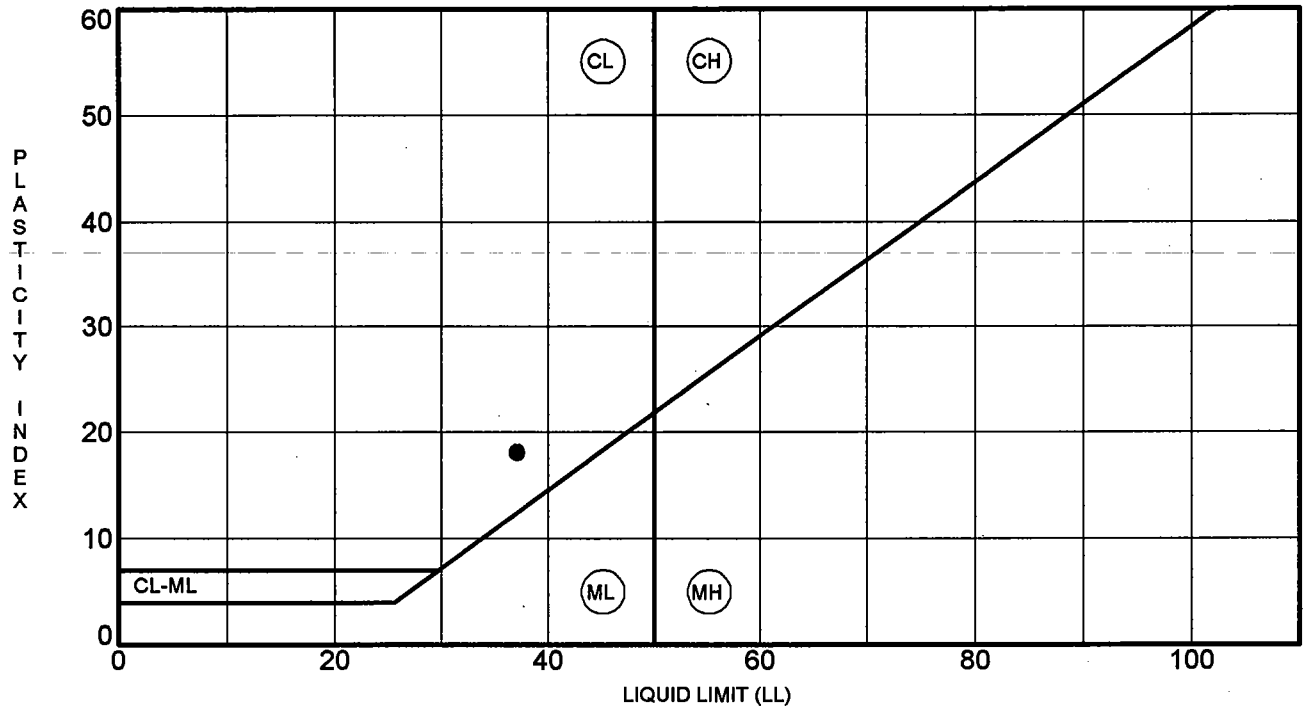
PROJECT **U.S. Army Corps of Engineers - Soil Borings and Sediment Sampling**

JOB NO. **9326.C1-2**

DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.



	Specimen Identification	LL	PL	PI	Fines	Classification
●	**SWB-21-02**	**37**	**19**	**18**		Light Gray Silty Clay CL
	PS-2 23.7-26.6					

PROJECT **U.S. Army Corps of Engineers - Soil Borings and Sediment Sampling**

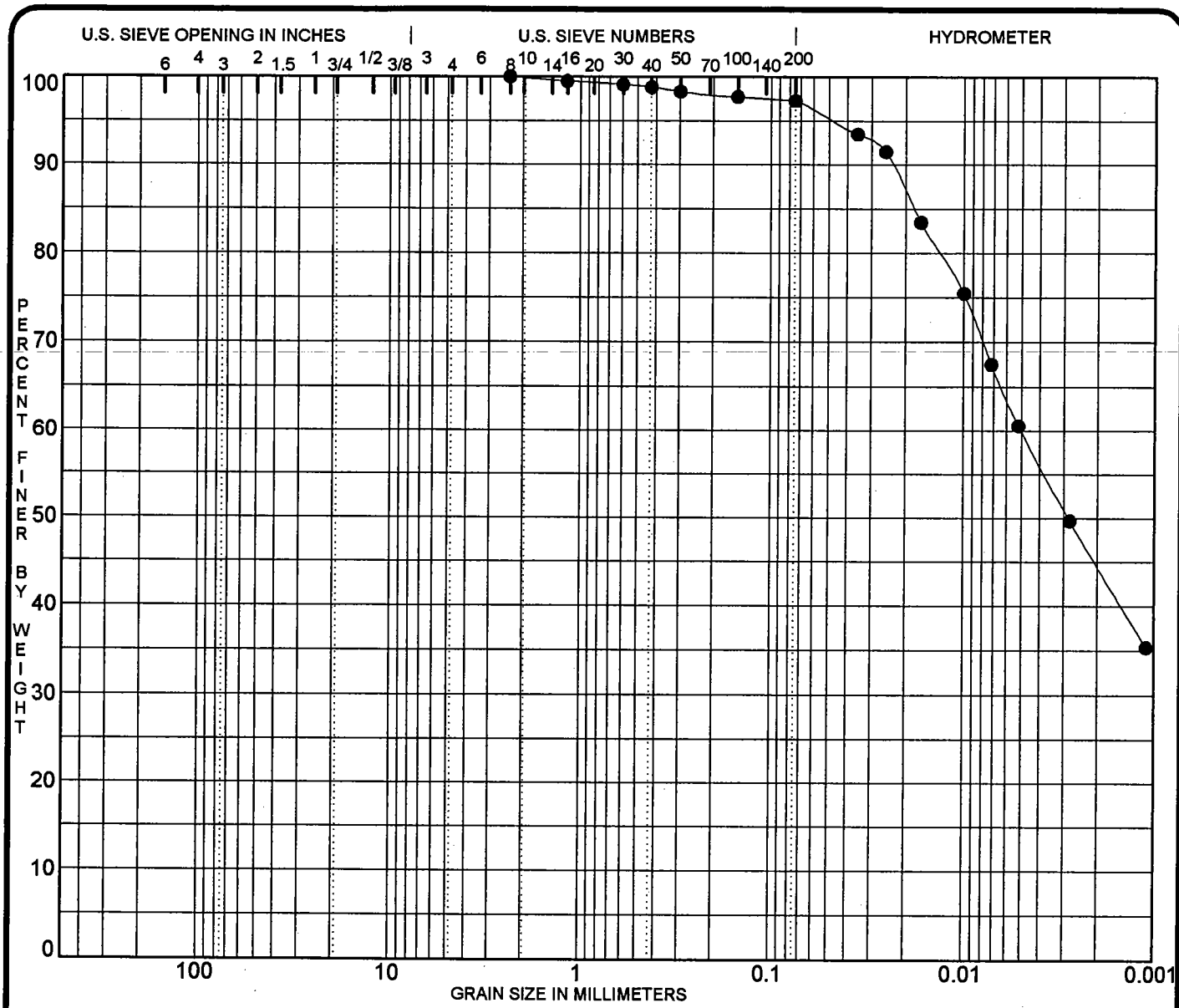
JOB NO. **9326.C1-2**

DATE **10/29/02**

ATTERBERG LIMITS' RESULTS

Patrick Engineering, Inc.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-1-02** SS-2	**Gray Silty Clay, Trace Medium to Fine Sand**		**39**	**17**	**22**		
	(22.7-24.7)	**CL**						

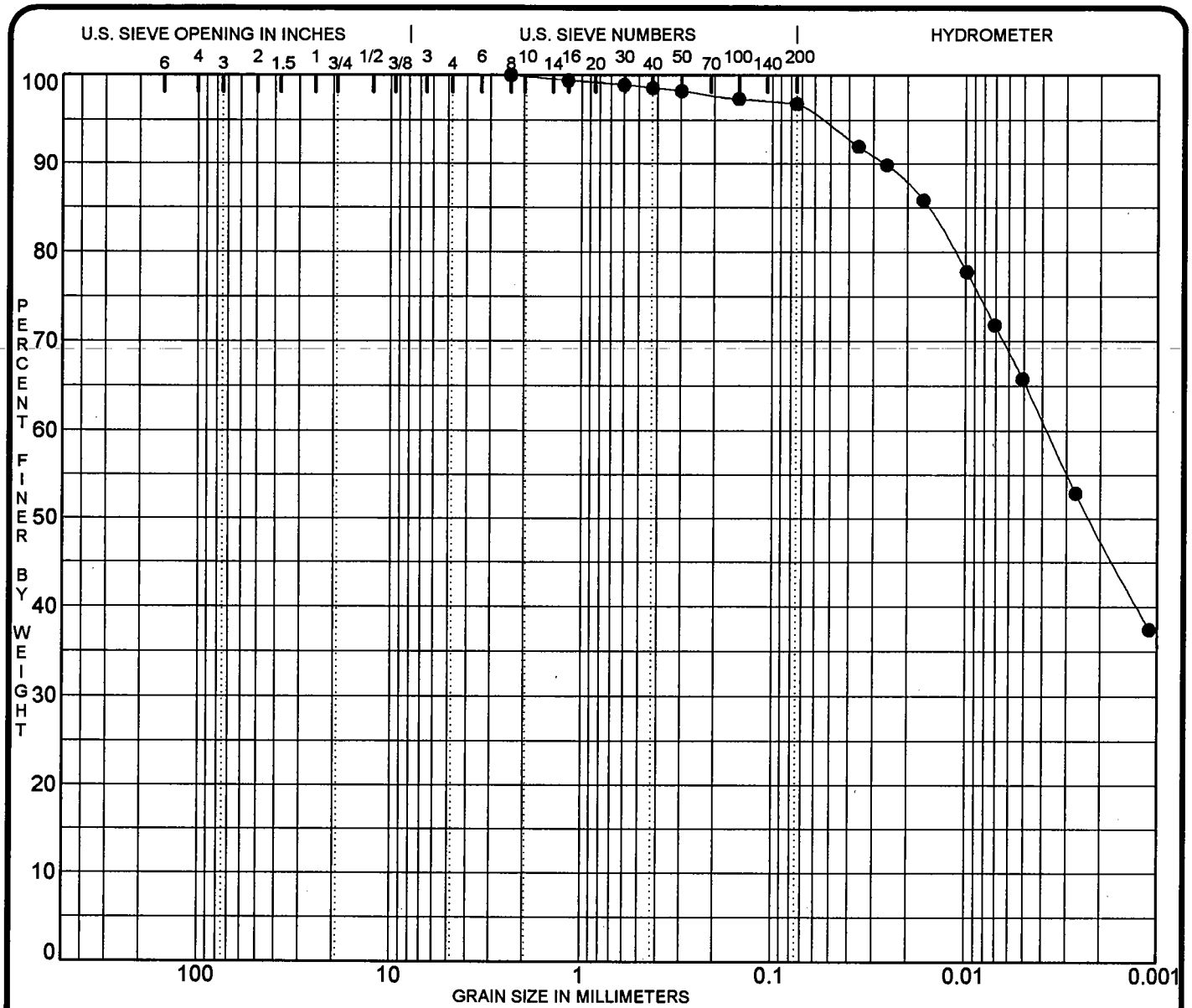
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-1-02**	**2.36**	**0.01**			**0.0**	**2.7**	**52.7**	**44.6**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-2-02 SS-2**	**Gray Silty Clay, Trace Medium to Fine Sand**		41	19	22		
	(24.2-26.2)	**CL**						

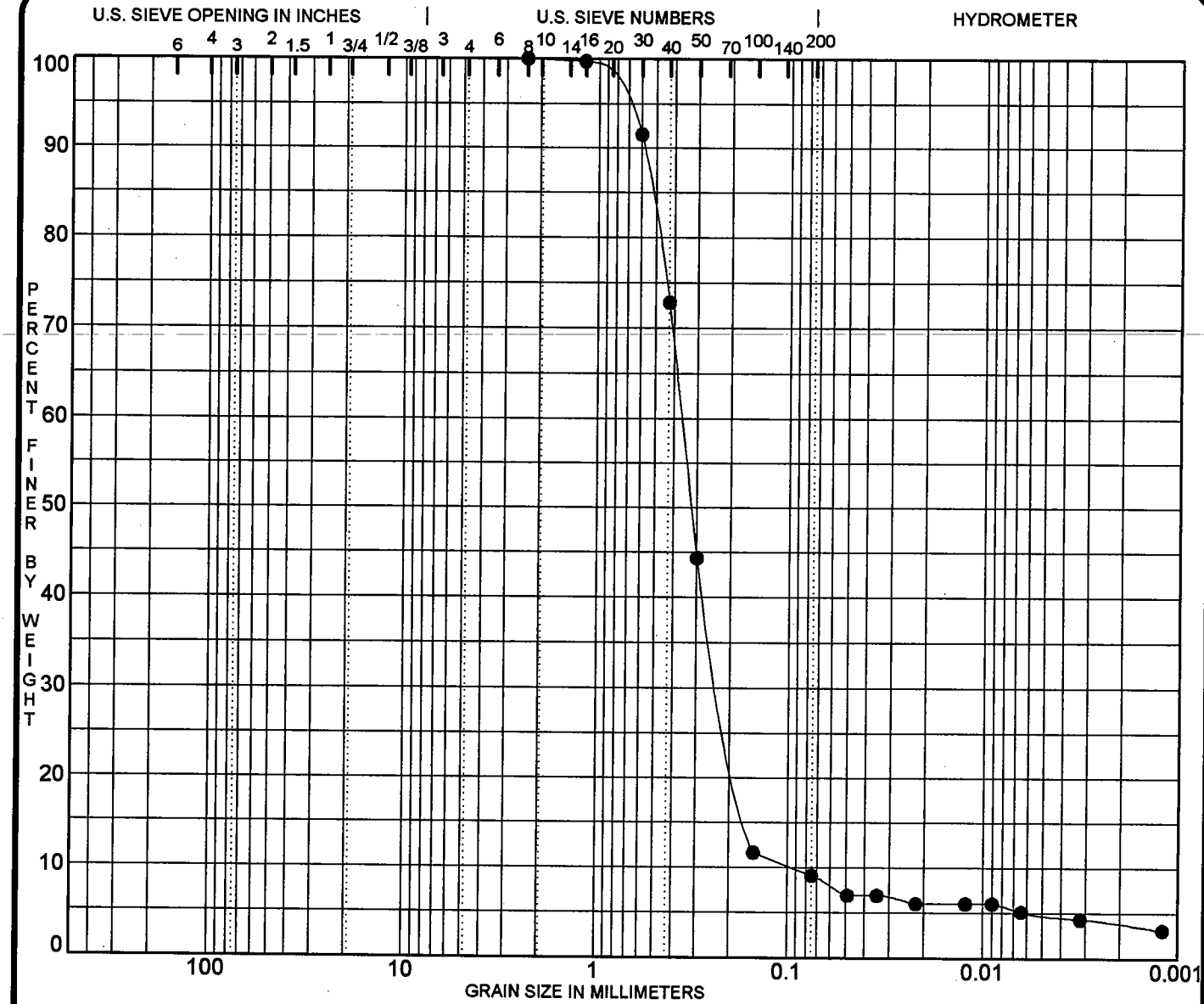
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-2-02**	**2.36**	**0.00**			**0.0**	3.1	**49.1**	**47.8**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-3-02 SS-5**	Light Brown and Gray Medium to Fine Sand,					**1.40**	**3.8**
	(30.7-32.7)	Trace Silty Clay SP-SC						

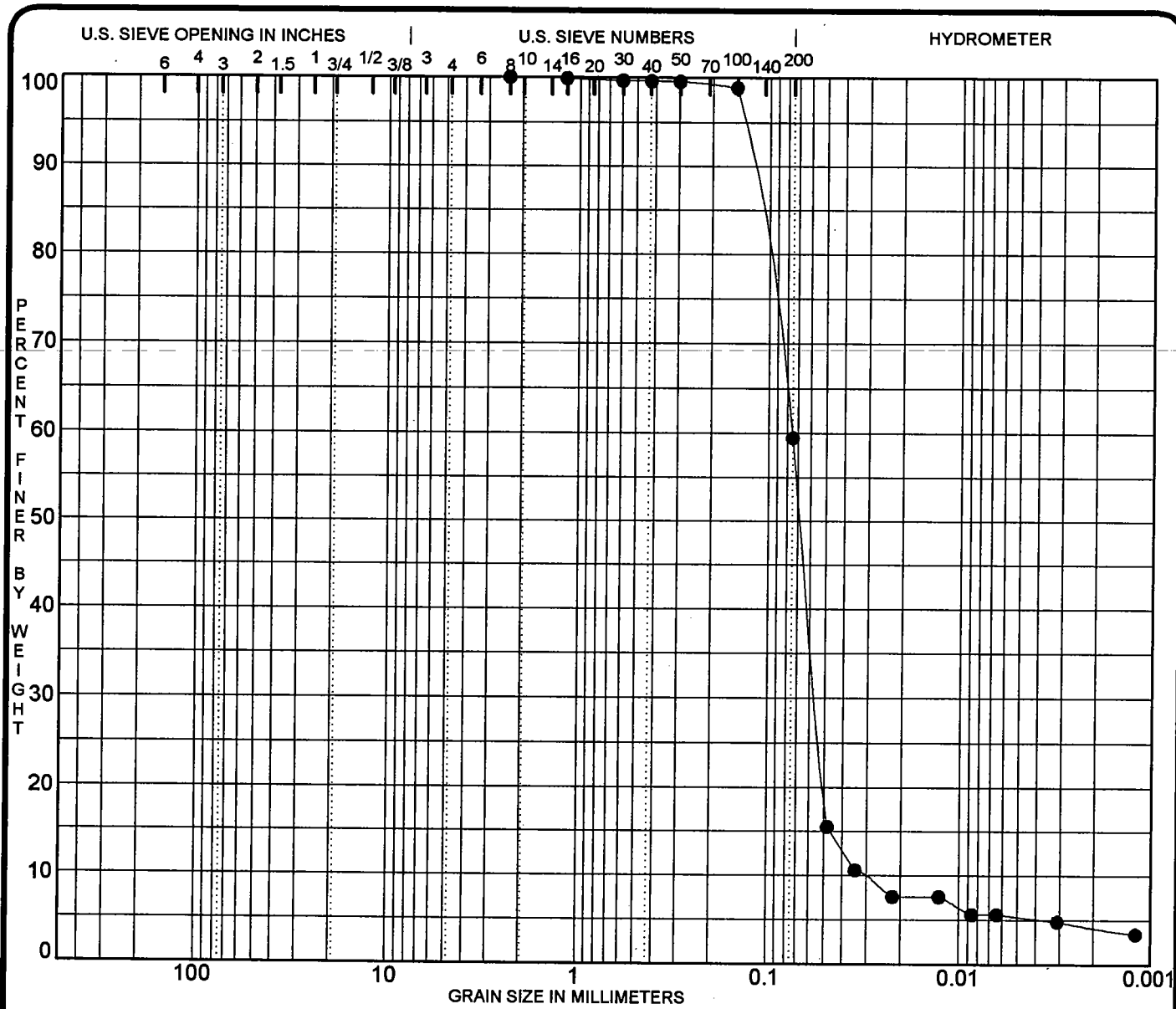
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-3-02**	**2.36**	**0.36**	**0.221**	**0.0961**	**0.0**	**90.9**	**5.4**	**3.7**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-4-02 SS-2**	**Light Brown and Gray Silt and Medium to**						
	(23.8-25.8)	**Fine Sand, Trace Clay ML**						

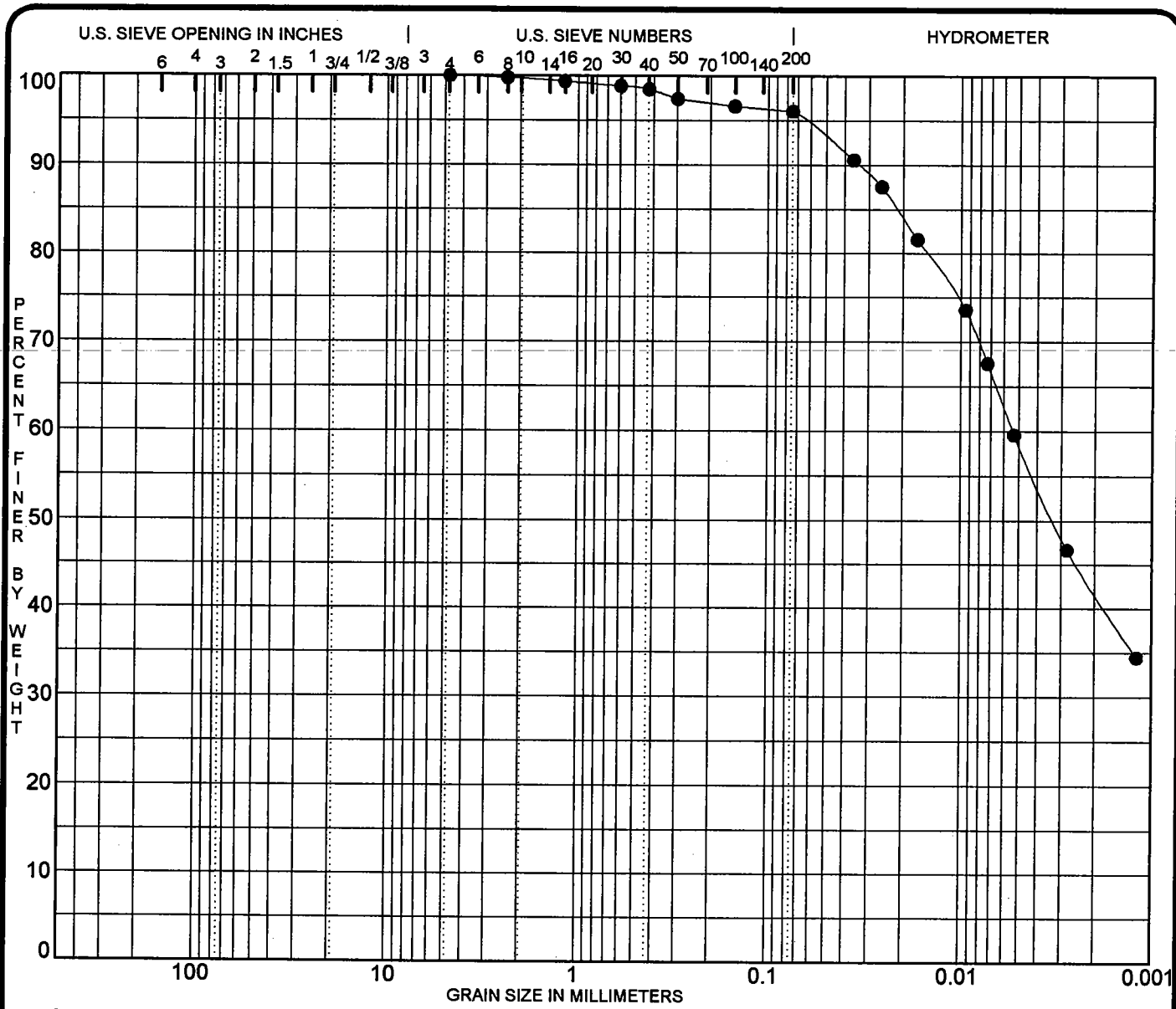
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-4-02**	**2.36**	**0.08**	**0.056**	**0.0315**	**0.0**	**40.5**	**55.3**	**4.2**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-5-02 SS-4**	**Gray Silty Clay, Trace Coarse to Fine Sand**		**37**	**19**	**18**		
	(21.8-23.8)	**CL**						

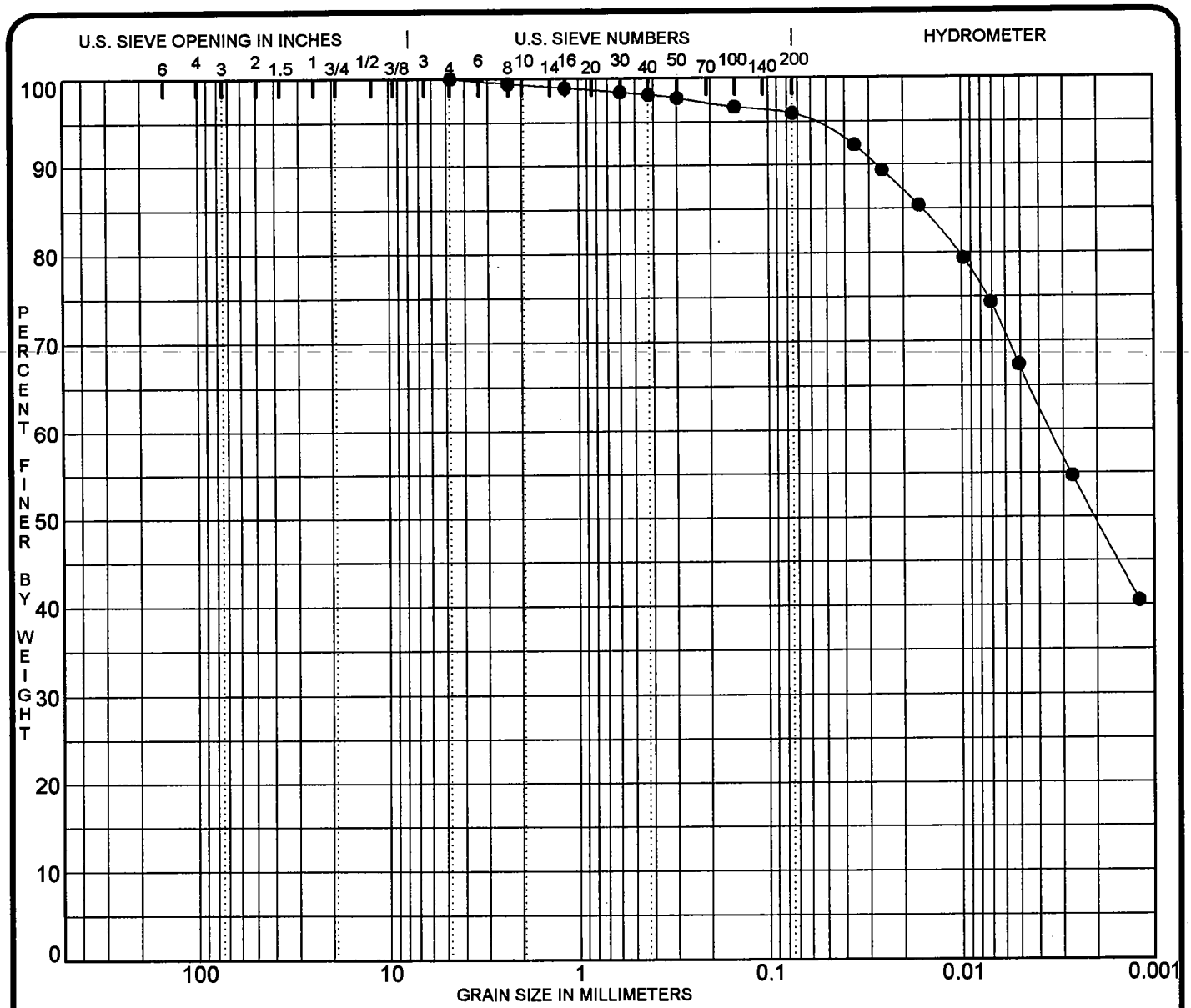
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-5-02**	**4.75**	**0.01**			**0.0**	**4.0**	54.1	**41.9**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-7-02 SS-2**	**Gray Silty Clay, Trace Coarse to Fine Sand**		**40**	**17**	**23**		
	22.8-24.8'	**CL**						

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-7-02**	**4.75**	**0.00**			**0.0**	**4.0**	**46.6**	**49.4**

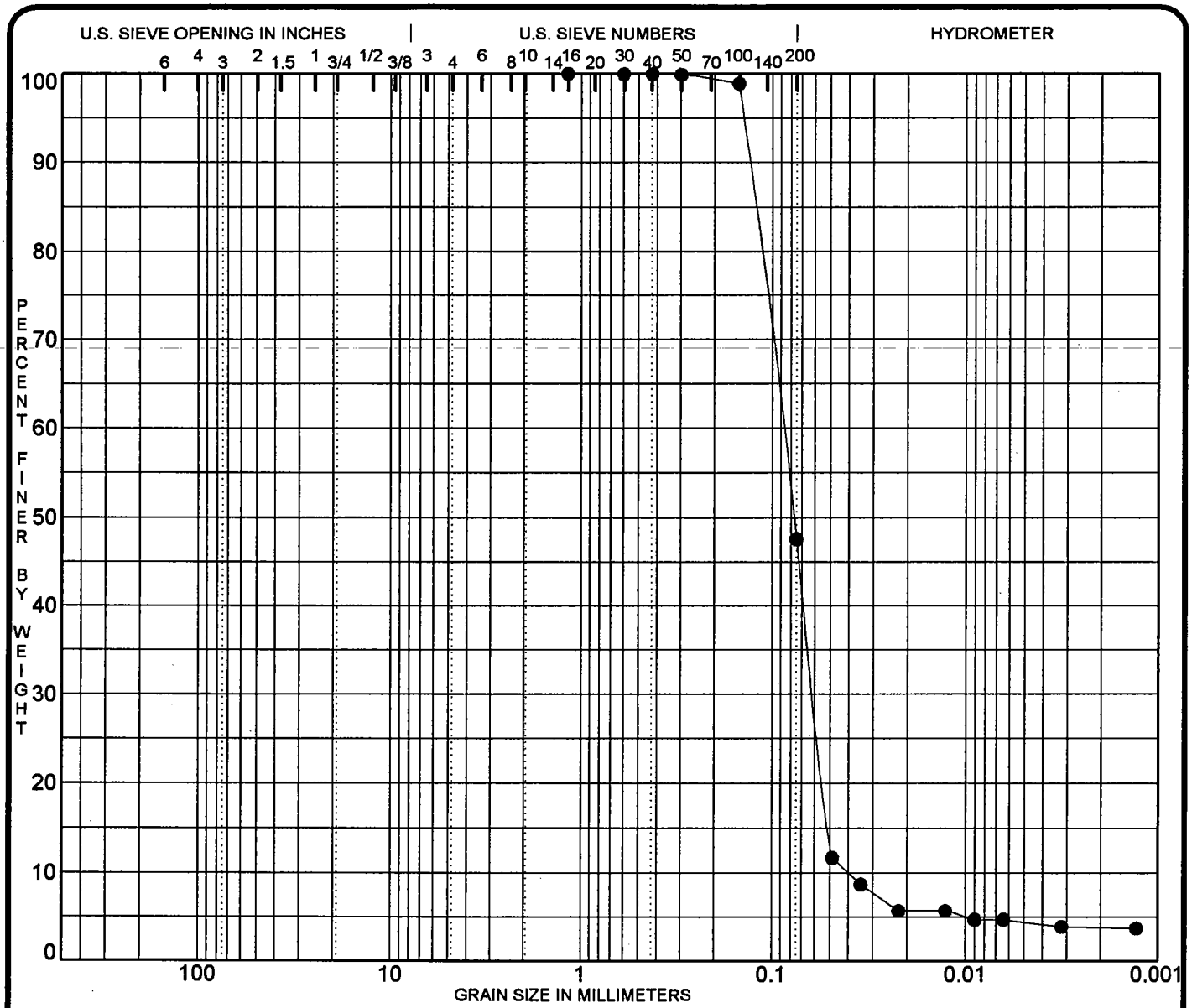
PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/29/03**

GRADATION CURVES

Patrick Engineering, Inc.

Testing Analyst: MG Results Checked By: MS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-8-02** SS-1	**Light Brown and Gray Medium to Fine Sand**						
	(16.8-18.8)	**and Silt, Trace Clay SM**						

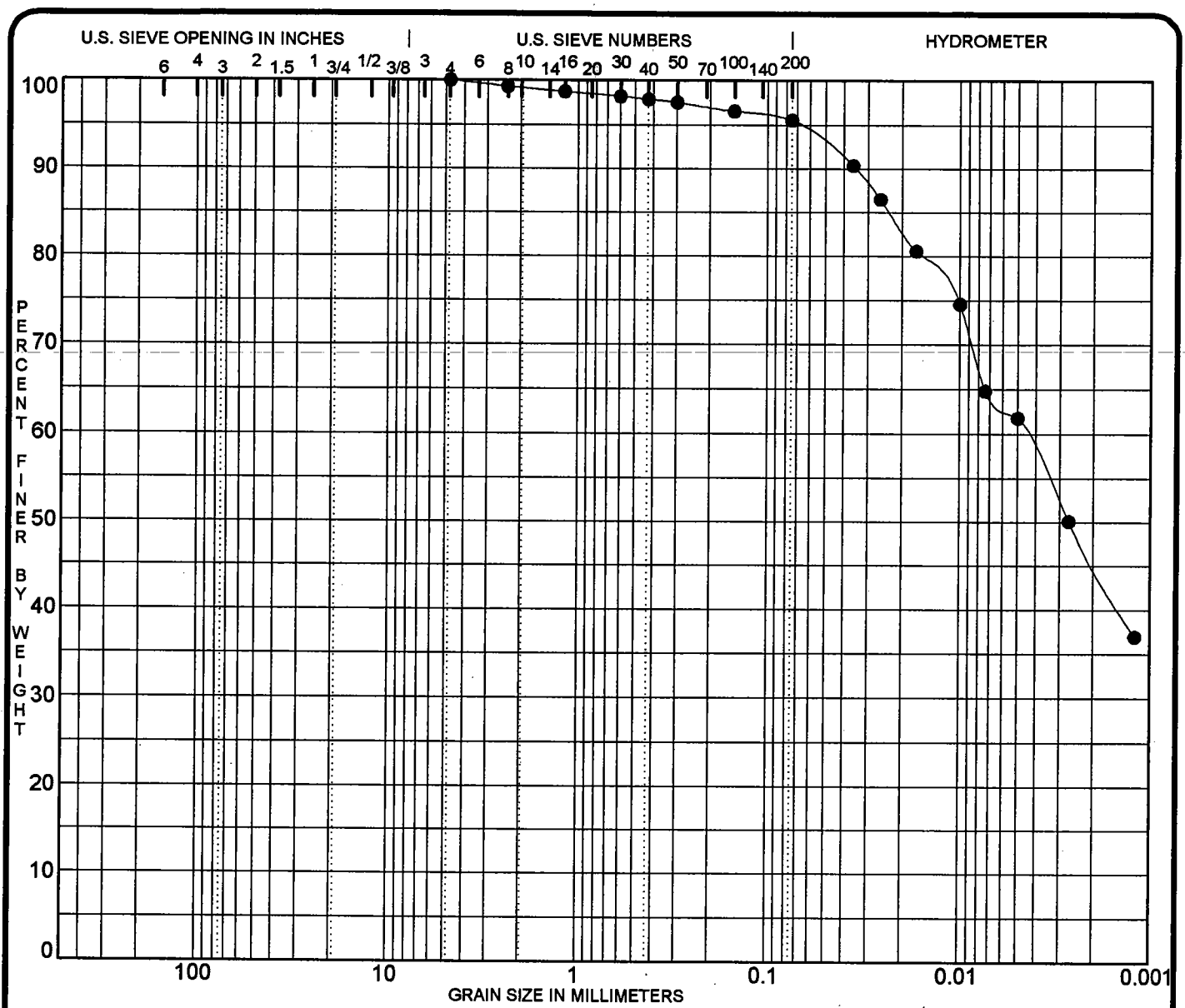
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-8-02**	**1.18**	**0.09**	**0.061**	**0.0401**	**0.0**	**52.4**	**43.8**	**3.8**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-10-02 SS-2**	**Gray Silty Clay, Trace Coarse to Fine Sand**		**36**	**16**	20		
	(22.0-24.0)	**CL**						

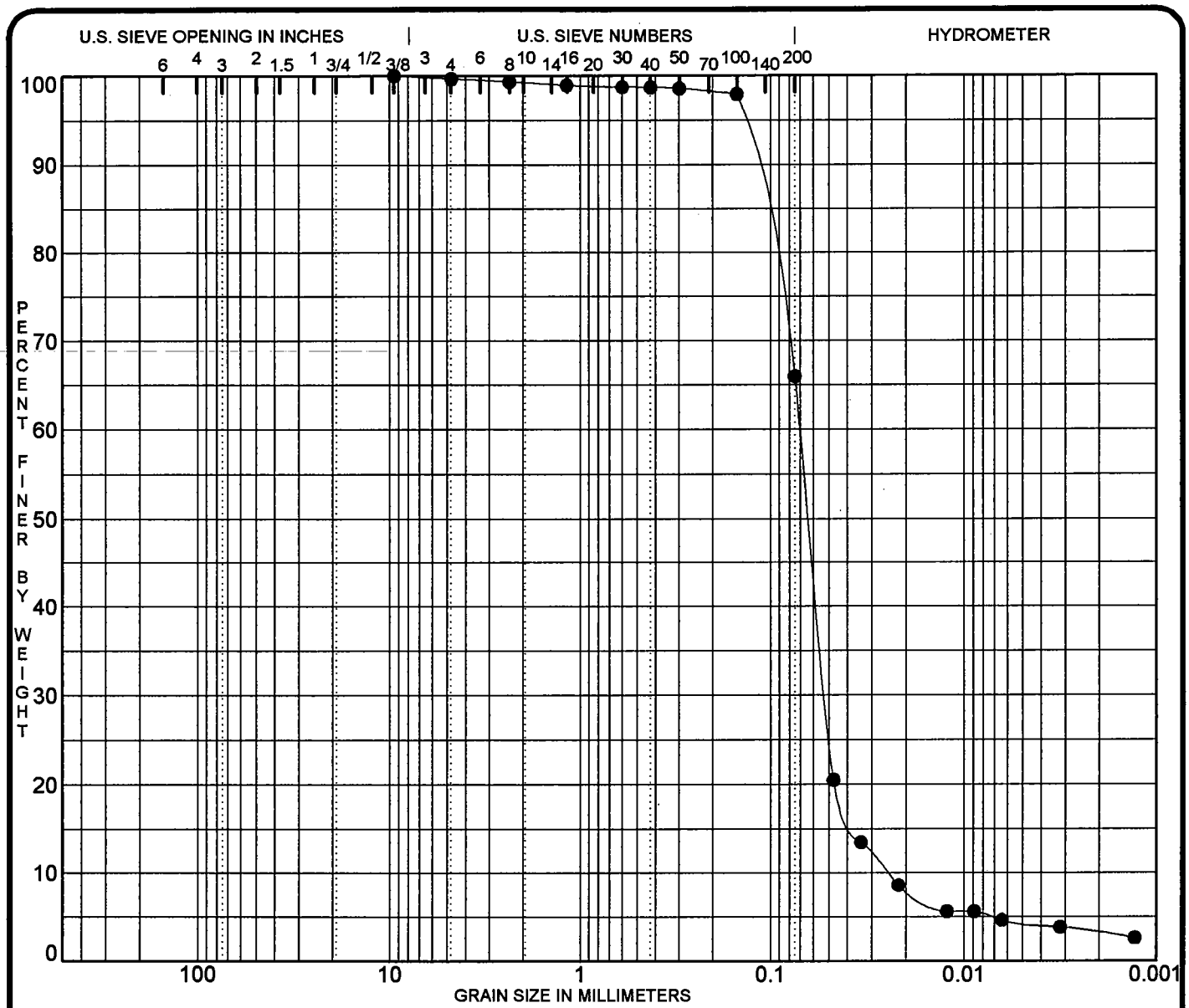
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-10-02**	**4.75**	**0.00**			**0.0**	**4.4**	**50.3**	**45.3**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-11-02 SS-2**	**Gray Fine Silt and Sand, Trace Clay, Trace**					**1.55**	**2.8**
	(25.2-27.2)	**Fine Gravel ML**						

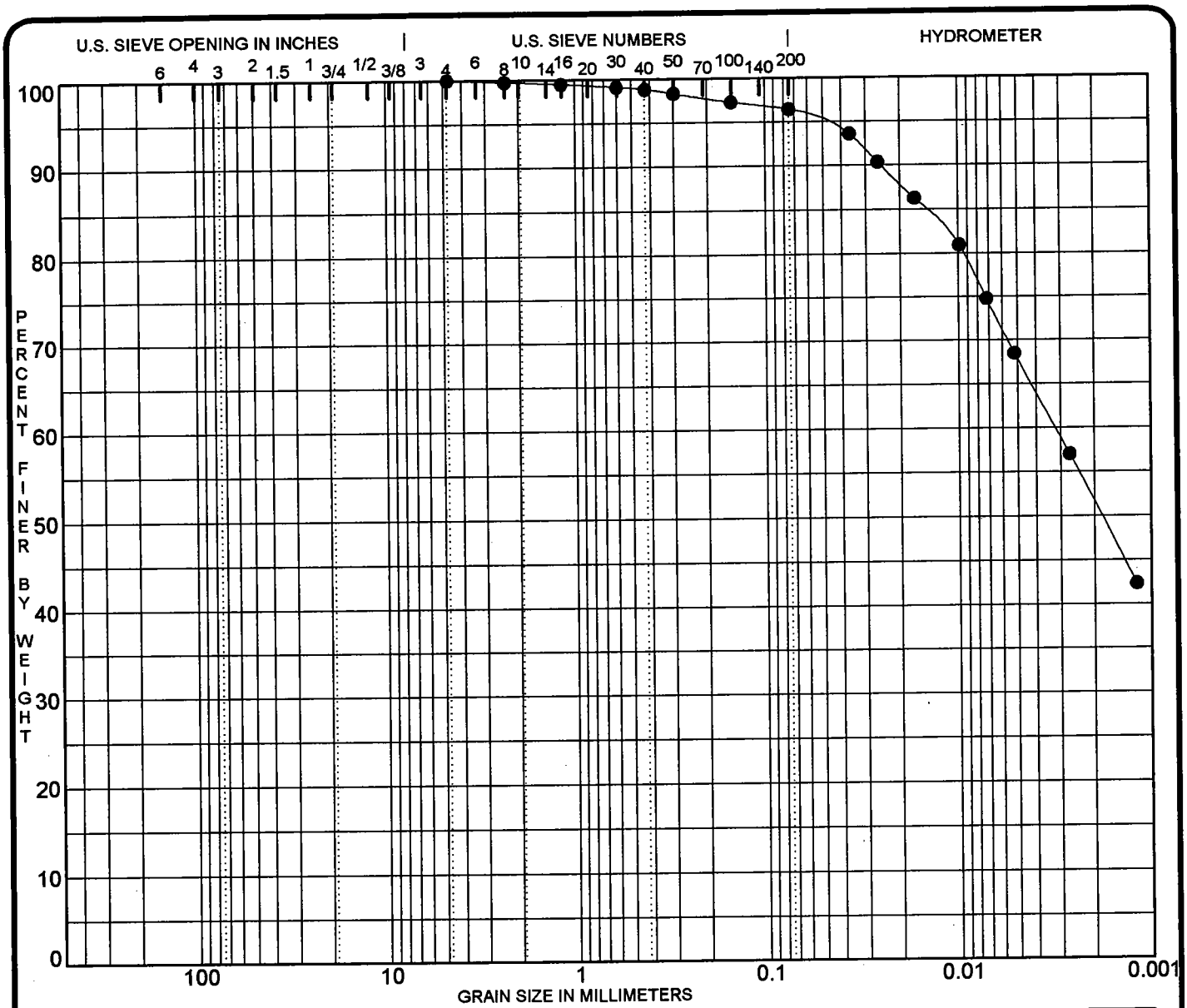
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-11-02**	**9.50**	**0.07**	**0.052**	**0.0249**	**0.3**	**33.7**	**62.8**	**3.2**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	MC%	LL	PL	PI	Cc	Cu
●	**SWB-12-02** SS-2	**Gray Silty Clay CL**		41	18	23		
	(21.1-23.1)							

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**SWB-12-02**	**4.75**	**0.00**			**0.0**	**3.6**	**44.8**	**51.6**

PROJECT **USACOE - Chicago - Indiana Harbor**

JOB NO. **9326.C1-5**
DATE **01/16/03**

GRADATION CURVES

Patrick Engineering, Inc.

APPENDIX C

CHEMICAL ANALYTICAL TESTING RESULTS

First Environmental Laboratories, Inc.
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233
IEPA Certification #100292

July 31, 2002

Mr. Scott Letzel
PATRICK ENGINEERING INC.
4970 Varsity Drive
Lisle, IL 60532

Project ID: 9326.Cl-2
First Environmental File ID: 63347-51
Date Received: July 19th, 2002

Dear Mr. Letzel:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, December 1996. Specific method references are listed on the Analytical Report. Results have been expressed on a dry weight basis per method protocol.

NOTE: Some reporting limits have been elevated due to matrix interferences.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

For

William H. Mottashed
Project Manager

First Environmental Laboratories, Inc.
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233
IEPA Certification #100292

Analytical Report

Client:	PATRICK ENGINEERING		
Project ID:	9326.Cl-2	Date Received:	07/19/02
Sample Number:	63347	Date Taken:	07/18/02
Sample Description:	SED-1-02	Time Taken:	2:18
Lab File ID:	63347-51	Date Reported:	07/31/02

Analyte	Result	Units	Flags
Solids, Total	36.35	%	
PCBs Method 3540C/8082			
Preparation Date: 07/22/02			
Date Analyzed: 07/23/02			
Aroclor 1016	< 250	ug/kg	
Aroclor 1221	< 250	ug/kg	
Aroclor 1232	< 250	ug/kg	
Aroclor 1242	2,800	ug/kg	
Aroclor 1248	< 250	ug/kg	
Aroclor 1254	< 250	ug/kg	
Aroclor 1260	1,210	ug/kg	

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IEPA Certification #100292

Analytical Report

Client:	PATRICK ENGINEERING		
Project ID:	9326.Cl-2	Date Received:	07/19/02
Sample Number:	63348	Date Taken:	07/18/02
Sample Description:	SED-2-02	Time Taken:	1:30
Lab File ID:	63347-51	Date Reported:	07/31/02

Analyte	Result	Units	Flags
Solids, Total	54.54	%	
PCBs Method 3540C/8082			
Preparation Date: 07/22/02			
Date Analyzed: 07/23/02			
Aroclor 1016	< 200	ug/kg	
Aroclor 1221	< 200	ug/kg	
Aroclor 1232	< 200	ug/kg	
Aroclor 1242	5,770	ug/kg	
Aroclor 1248	< 200	ug/kg	
Aroclor 1254	< 200	ug/kg	
Aroclor 1260	1,100	ug/kg	

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IEPA Certification #100292

Analytical Report

Client:	PATRICK ENGINEERING		
Project ID:	9326.Cl-2	Date Received:	07/19/02
Sample Number:	63349	Date Taken:	07/18/02
Sample Description:	SED-3-02	Time Taken:	12:00
Lab File ID:	63347-51	Date Reported:	07/31/02

Analyte	Result	Units	Flags
Solids, Total	57.34	%	
PCBs Method 3540C/8082			
Preparation Date: 07/22/02			
Date Analyzed: 07/23/02			
Aroclor 1016	< 200	ug/kg	
Aroclor 1221	< 200	ug/kg	
Aroclor 1232	< 200	ug/kg	
Aroclor 1242	9,180	ug/kg	
Aroclor 1248	< 200	ug/kg	
Aroclor 1254	< 200	ug/kg	
Aroclor 1260	1,560	ug/kg	

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1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233
IEPA Certification #100292

Analytical Report

Client:	PATRICK ENGINEERING		
Project ID:	9326.Cl-2	Date Received:	07/19/02
Sample Number:	63350	Date Taken:	07/18/02
Sample Description:	SED-4-02	Time Taken:	12:30
Lab File ID:	63347-51	Date Reported:	07/31/02

Analyte	Result	Units	Flags
Solids, Total	67.98	%	
PCBs Method 3540C/8082			
Preparation Date: 07/22/02			
Date Analyzed: 07/23/02			
Aroclor 1016	< 200	ug/kg	
Aroclor 1221	< 200	ug/kg	
Aroclor 1232	< 200	ug/kg	
Aroclor 1242	844	ug/kg	
Aroclor 1248	< 200	ug/kg	
Aroclor 1254	< 200	ug/kg	
Aroclor 1260	211	ug/kg	

First Environmental Laboratories, Inc.
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IEPA Certification #100292

Analytical Report

Client:	PATRICK ENGINEERING		
Project ID:	9326.Cl-2	Date Received:	07/19/02
Sample Number:	63351	Date Taken:	07/18/02
Sample Description:	SED-5-02	Time Taken:	12:42
Lab File ID:	63347-51	Date Reported:	07/31/02

Analyte	Result	Units	Flags
Solids, Total	69.52	%	
PCBs Method 3540C/8082			
Preparation Date: 07/22/02			
Date Analyzed: 07/23/02			
Aroclor 1016	< 200	ug/kg	
Aroclor 1221	< 200	ug/kg	
Aroclor 1232	< 200	ug/kg	
Aroclor 1242	2,050	ug/kg	
Aroclor 1248	< 200	ug/kg	
Aroclor 1254	< 200	ug/kg	
Aroclor 1260	546	ug/kg	

CHAIN OF CUSTODY RECORD

Page____ of ____ pgs

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

Company Name: PATRICK ENG.
Street Address: 4985 VARSITY DR.
City: LISLE, ~~ILLINOIS~~ State: IL Zip: 60532
Phone: 630-995-7362 Fax:
Send Report To: SCOTT LETZEL
Sampled By: SCOTT LETZEL

Project I.D.: 9326.C1-2
P.O. #.:

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	PCB's							Comments	Lab I.D.
7/18/02 2:18	SED-1-02	S	X							NORMAL TURN	63347
1:30	SED-2-02		X								63348
12:00	SED-3-02		X								63349
12:30	SED-4-02		X								63350
12:42	SED-5-02		X								63351

Cooler Temperature:_____°C
Received within 6 hrs. of collection: _____

Notes and Special Instructions:

Relinquished By: Scott Letzel Date/Time 7/19/02 8:23 Received By: Brian M. Snelten Date/Time 7/19/02 8:29AM
Relinquished By: Brian M. Snelten Date/Time 7/19/02 8:55 Received By: [illegible] Date/Time 7/19/02 9:00

Rev. 1/01

TERMS and CONDITIONS

1. **Contract Formation:** "Client" may order analytical or related services ("Services") from ***First Environmental Laboratories, Inc.*** by either a written Purchase Order or a telephone order. Any such order by Client shall constitute acceptance of ***First Environmental Laboratories'*** offer to do business with Client under this Agreement. Client's delivery of samples to ***First Environmental Laboratories*** also constitutes acceptance by Client of the terms and conditions of this Agreement. Any conflicting and/or pre-printed terms and conditions of any Client request/purchase order are null and void. This Agreement may be amended only by written agreement between ***First Environmental Laboratories*** and Client. ***First Environmental Laboratories*** may also quote special prices or modify terms and conditions for acceptance by Client.

2. **Quality Control:** All services shall be performed in accordance with specifications furnished by Client and with ***First Environmental Laboratories*** Quality Assurance/Quality Control Plan (QA/QC Plan) in effect at the time the services are performed. ***First Environmental Laboratories*** reserves the right to deviate from standard methodologies where this is, in our judgment, necessary or advisable. Any deviations will be consistent with recognized industry standards and/or ***First Environmental Laboratories'*** standard operating procedures.

First Environmental Laboratories represents that its services shall be performed in a manner consistent with that level of care and skill ordinarily exercised by other persons or entities providing like services under similar circumstances.

3. **Sample Acceptance Criteria**

All samples shall be supplied by Client. Each sample shall be accompanied by the following to ensure proper handling: (1) analyses requested (2) Purchase Order information (3) written disclosure of the presence, known or suspected, of any "hazardous substance" (4) Client Name, address and phone number (5) sample and project identifications (6) date/time of collection (7) Collector's name (8) samples are to be in appropriately preserved containers (9) thermal preservation requirements met (10) samples delivered prior to expiration of any short holding times. Client shall handle, package, label transport and deliver all samples which contain a hazardous substance in accordance with all applicable Federal, State and local laws, rules or regulations.

B. ***First Environmental Laboratories*** has the right to refuse to accept or to revoke acceptance of any samples supplied by Client which, in our opinion, are of insufficient volume or pose an unreasonable risk in handling or in analyzing, whether or not such risk has been disclosed by Client.

C. Prior to ***First Environmental Laboratories*** accepting any sample, risk of loss or damage to the sample will remain with Client. ***First Environmental Laboratories*** will be deemed to have accepted the samples upon our execution of the appropriate Chain-of-Custody form. The Client will be advised of any samples which are lost in transit or received in damaged, contaminated, or improperly preserved condition. ***First Environmental Laboratories*** will not have any responsibility or liability for the actions or omissions of any carrier shipping or delivering samples to or from our premises.

4. **Subcontracting.** ***First Environmental Laboratories*** has the right to subcontract all or any portion of the Services.

5. **Payment.**

A. For all analytical Services, ***First Environmental Laboratories*** shall be paid in accordance with the unit prices in our Price Schedule in effect when the analyses are performed, unless otherwise agreed by ***First Environmental Laboratories*** and Client. Current price schedule is subject to change without notice.

B. ***First Environmental Laboratories*** shall submit invoices to Client upon completion of Services. Invoices shall be due and payable within thirty (30) days of date of invoice.

C. ***First Environmental Laboratories*** reserves the right to cease performance of the Services and/or terminate this Agreement in the event Client does not timely pay invoices or if Client's financial condition or other circumstances do not warrant the continuing performance of Services.

6. **Limitation of Liability.**

First Environmental Laboratories will use all reasonable efforts to comply with storage, processing and analytical holding time limits required by applicable government regulations or by Client, neither such time limits nor analytical turnaround times are guaranteed.

7. **Arbitration.**

If any controversy or claim arises out of or relates to this contract, or breach thereof, and if said dispute cannot be settled through negotiation, ***First Environmental Laboratories*** and Client shall submit to binding arbitration in accordance with the Construction Industry Arbitration Rules of the AAA, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

8. **Indemnification.** Client shall indemnify and forever hold harmless ***First Environmental Laboratories*** and its respective owners, officers, directors and employees individually and jointly from and against any and all causes of action, claims, injuries, lawsuits, demands, judgments, damages, losses, liabilities, fines, penalties, expenses and other charges directly or indirectly arising from or related to: (a) the negligent actions, omissions or willful misconduct of Client; or (b) Client's breach of its warranties or obligations under this Agreement; of (c) Seller's performance of the Services, provided, however, that the foregoing indemnification shall not apply to the extent any damages are caused solely by the gross negligence or willful misconduct of ***First Environmental Laboratories.***

9. **Storage and Disposal of Samples.** Unless otherwise agreed to by ***First Environmental Laboratories*** and Client in writing, samples are retained for thirty (30) days after the analytical report is issued. After this 30 day period, samples may be disposed of or returned to Client.

10. **Termination.** Either Client or ***First Environmental Laboratories*** may terminate this Agreement at any time by sending to the other a written Notice of Termination. Upon termination, Client shall be invoiced for services performed and charges incurred prior to termination.

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1 Alt I	Definitions (Dec 2001) --Alternate I	MAY 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2003
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	OCT 2003
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-11	Price Reduction for Defective Cost or Pricing Data--Modifications	OCT 1997
52.215-13	Subcontractor Cost or Pricing Data--Modifications	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9	Small Business Subcontracting Plan	JAN 2002
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis-Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	DEC 2001
52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	DEC 2003

52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-4	Patent Indemnity-Construction Contracts	APR 1984
52.228-2	Additional Bond Security	OCT 1997
52.228-5	Insurance - Work On A Government Installation	JAN 1997
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.229-3	Federal, State And Local Taxes	APR 2003
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-17	Interest	JUN 1996
52.232-23	Assignment Of Claims	JAN 1986
52.232-27	Prompt Payment for Construction Contracts	OCT 2003
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-21 Alt I	Specifications and Drawings for Construction (Feb 97) - Alternate I	APR 1984
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-5	Changes and Changed Conditions	APR 1984
52.244-6	Subcontracts for Commercial Items	APR 2003
52.246-21	Warranty of Construction	MAR 1994
52.248-3	Value Engineering-Construction	FEB 2000
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Sep 1996) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.203-7002	Display Of DOD Hotline Poster	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Required Central Contractor Registration Alternate A	NOV 2003
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998

252.215-7000	Pricing Adjustments	DEC 1991
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.225-7012	Preference For Certain Domestic Commodities	FEB 2003
252.227-7033	Rights in Shop Drawings	APR 1966
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7002	Obstruction of Navigable Waterways	DEC 1991
252.242-7000	Postaward Conference	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	MAR 2000
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than two hundred and thirty days (230) days after receipt of the Notice to Proceed. The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $1,992.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement

of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (JUN 2003)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: None

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....
Item 2			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).
List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.
Include other applicable supporting information.

(End of clause)

52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)-

(a) Definitions. As used in this clause--

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is $100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or,

in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amount is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under

this contract.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an

equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

http://farsite.hill.af.mil/

(End of clause)

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Sheet No.	Sheet Ref.	Title
1	G-01	LOCALITY & VICINITY MAPS
2	G-02	INDEX SHEET, STANDARD SYMBOLS, AND NOTES
3	C-01	WORK LIMITS, STAGING, STORAGE & ACCESS
4	C-01A	WORK LIMITS, STAGING, STORAGE & ACCESS
5	C-01B	TABLE OF WORK LIMITS AND SURVEY POINTS
6	C-02	EXISTING CONDITION SURVEY STA. 0+00 TO 4+50
7	C-03	OBSTRUCTION REMOVAL AND DEMOLITION PLAN STA. 0+00 TO 4+50
8	C-04	EXISTING CONDITION SURVEY STA. 4+50 TO 10+50
9	C-05	OBSTRUCTION REMOVAL AND DEMOLITION PLAN STA. 4+50 TO 10+50
10	C-06	EXISTING CONDITION SURVEY STA. 10+50 TO 16+50
11	C-07	OBSTRUCTION REMOVAL AND DEMOLITION PLAN STA. 10+50 TO 16+50
12	C-08	EXISTING CONDITION SURVEY STA. 16+50 TO 21+00
13	C-09	OBSTRUCTION REMOVAL AND DEMOLITION PLAN STA. 16+50 TO 21+00
14	C-10	EXISTING CANAL STEEL SHEETPILE BULKHEAD
15	S-01	OBSTRUCTION REMOVAL CHANNEL PROFILE STA. 0+00 TO 11+00
16	S-02	OBSTRUCTION REMOVAL CHANNEL PROFILE STA. 11+00 TO 23+00
17	S-03	OBSTRUCTION REMOVAL CONCEPTUAL SHORING SYSTEM PLAN, SECTION AND DETAILS

(End of clause)

ACCOUNTING AND APPROPRIATION DATA

AA: 96 NA X 3122.0000 H6 X 08 2426 075535 96112 2520 LJ3G41
AMOUNT: $500,000.00

CLAUSES INCORPORATED BY FULL TEXT

52.232-5001 CONTINUING CONTRACTS (MAR 1995)--EFARS

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of $500,000.00 has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The contracting officer will promptly notify the contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the contractor shall give written notice to the contracting officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from

exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the contractor, by written notice delivered to the contracting officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the contractor, to reduce said reservation by the amount of such excess.

(End of clause)

SECTION 00830

Wage Rates

General Decision Number: IN030001 06/13/2003
Superseded General Decision No. IN020001
State: Indiana
Construction Type:
BUILDING
HEAVY
HIGHWAY
County(ies):
LA PORTE PORTER
LAKE ST JOSEPH
BUILDING CONSTRUCTION PROJECTS (does not include single family homes and apartments up to and including 4 stories, HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):
LA PORTE PORTER
LAKE ST JOSEPH

ASBE0017C 06/01/2002

	Rates	Fringes
LAKE AND PORTER COUNTIES		
ASBESTOS WORKERS	29.80	13.70
HAZARDOUS MATERIAL HANDLER (INCLUDES PREPARATION, WETTING, STRIPPING REMOVAL SCRAPPING, VACUUMING, BAGGING AND DISPOSAL OF ALL INSULATION MATERIALS, WHETHER THEY CONTAIN ASBESTOS		

OR NOT, FROM MECHANICAL SYSTEMS) 20.20 9.02

ASBE0075A 06/01/2002

	Rates	Fringes
REMAINING COUNTIES:		
ASBESTOS WORKERS	26.00	7.84
HAZARDOUS MATERIAL HANDLERS (includes preparation, wetting, stripping, removal, scrapping, vaccuming, bagging, and disposal of all insulation materials, whether they contain asbestos or not, from mechanical systems	15.55	4.50

BOIL0001E 07/01/2002

	Rates	Fringes
LAKE COUNTY, City of Hammond; North of 114th Street		
BOILERMAKERS	32.71	4.30+17.5%

BOIL0374P 07/01/2002

	Rates	Fringes
BOILERMAKERS	28.25	10.80

BRIN0004E 06/01/2001

	Rates	Fringes
MERRILLVILLE LAKE, LAPORTE AND PORTER COUNTIES		
BRICKLAYERS, STONMASONS, CAULKERS, POINTERS, CLEANERS	26.54	8.27
MARBLE SETTER, TILE SETTER, AND TERRAZZO WORKERS	26.00	8.77
TILE, TERRAZZO AND MARBLE FINISHERS	20.27	4.60

BRIN0004F 06/01/2001

	Rates	Fringes
SOUTH BEND ST. JOSEPH COUNTY		
BRICKLAYER, MASON, POINTER, CLEANER & CAULKER	22.81	7.02
MARBLE, TILE LAYER AND TERRAZZO WORKERS	21.60	5.47
TILE, TERRAZZO AND MARBLE FINISHERS	20.27	4.60

CARP0765A 06/01/2001

	Rates	Fringes
LAKE, LAPORTE AND PORTER COUNTIES		
HEAVY, HIGHWAY AND BUILDING CONSTRUCTION:		
Carpenters	27.15	11.77
Millwrights	27.25	11.77

CARP0888A 06/01/2002

	Rates	Fringes
ST JOSEPH COUNTY (ZONE 1)		
CARPENTERS	23.02	6.49
MILLWRIGHTS	20.72	5.41
HEAVY AND HIGHWAY CONSTRUCTION		
Carpenters	22.41	6.34

ELEC0153A 06/03/2002

	Rates	Fringes
ST JOSEPH COUNTY		
ELECTRICIANS	25.76	9.76
COMMUNICATION TECHNICIANS	20.94	6.78

Includes the installation, operation, inspection, modification, maintenance and repair of systems used for the transmission and reception of signals of any nature, for any purpose, including but not limited to, sound and voice transmission/transference systems, communication systems that transmit or receive information and/or control systems, television and video systems, micro-processor controlled fire alarm systems, and security systems and the performance of any task directly related to such installation or service. The scope of work shall exclude the installation of electrical power wiring and the installation of conduit raceways exceeding fifteen (15) feet in length.

ELEC0531A 09/02/2002

	Rates	Fringes
LAPORTE AND PORTER COUNTIES		
ELECTRICIANS	29.70	10.36

ELEC0697A 05/27/2002

	Rates	Fringes
LAKE COUNTY:		
ELECTRICIANS	32.10	11.62

ELEC0697D 10/01/2000

	Rates	Fringes
LAKE COUNTY		
TELECOMMUNICATIONS TECHNICIAN	22.36	9.12

Work covers low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V/SAT, bypass, CATV, WAN (WIDE AREA NETWORKS), LAN (local area networks), and ISDN (integrated system digital network). Does not cover any work which properly comes under the work description of Inside JW (Journeyman Wireman), but shall cover the pulling of wire in raceways, but not the installation of raceways.

ELEC1393Q 01/01/2003

	Rates	Fringes
LAKE & PORTER COUNTIES		
(Calumet Area, North of U.S.		

Hwy 30)
LINE CONSTRUCTION:
LINEMAN 28.30 2.75+22.5%
GROUNDMAN, EQUIPMENT OPERATOR:
(Diggers 5th wheel type trucks,
crawler type, D-4 and smaller,
bucket trucks and live boom
type line trucks) 21.65 2.75+22.5%
EQUIPMENT OPERATOR (Backhoe
over 1/2 yard bucket capacity,
cranes rated at 15 ton or more
capacity) 95% of J.L. Rate 26.07 2.75+22.5%
GROUNDMAN-TRUCK DRIVER 19.32 2.75+22.5%
GROUNDMAN 16.14 2.75+22.5%

ELEV0002P 07/03/2002
Rates Fringes
LAKE AND PORTER COUNTIES
ELEVATOR CONSTRUCTION:
ELEVATOR MECHANIC 34.475 7.455+a&b
FOOTNOTES:
a. Seven paid holidays: New Year's Day; Memorial Day;
Independence Day; Labor Day; Thanksgiving Day; Day after
Thanksgiving; & Christmas Day.
b. Employer contributes 8% of regular hourly rate to vacation
pay credit for employee who has worked in business more than
5 years; Employer contributes 6% of regular hourly rate to
vacation pay credit for employee who has worked in business less
than 5 years.

ELEV0057A 09/01/2001
Rates Fringes
LAPORTE AND ST. JOSEPH COUNTIES
ELEVATOR MECHANIC 25.145 7.455 a+b
FOOTNOTES:
a. Employer contributes 8% basic hourly rate for 5 years or
more of service or 6% basic hourly rate for 6 months to 5
years of service as vacation pay credit.
b. New Year's Day; Memorial Day; Independence Day;
Labor Day; Thanksgiving Day; Christmas Day plus the Friday
after Thanksgiving Day.

ENGI0150A 06/01/2002
Rates Fringes
LAKE, LAPORTE, PORTER COUNTIES
BUILDING CONSTRUCTION POWER EQUIPMENT OPERATORS:
GROUP 1 30.30 11.05
GROUP 2 29.80 11.05
GROUP 3 27.85 11.05
GROUP 4 26.65 11.05
GROUP 5 25.25 11.05
POWER EQUIPMENT OPERATOR CLASSIFICATIONS
GROUP 1: Asphalt Plant; Autograde; Batch Plant); Benoto
(requires 2 engineers; Boiler & throttle valve; Boring machine

(mining machine); Caisson Rigs; Central redi-mix plant; Combination Backhoe Endloader with backhoe bucket over 1/2 cu. yd. or with attachments; Combination tugger hoist & air compressor; Compressor & throttle; Concrete Breaker (truck mounted); Concrete conveyor; Concrete conveyor (truck mounted); Concrete paver over 27E cu.ft.; Concrete paver 27E cu. ft. & under; Concrete placing boom; Concrete pump/grout pump with boom (truck mounted); Concrete pump with boom (truck mounted); concrete tower; Cranes and Backhoes (All Attachments); Cranes, Hammerhead Tower; Creter Crane; Derricks (all); Derricks (traveling); Forklift lull type; Forklift, 10 ton & over; Gradall, Hoist 1, 2, and 3 drums; Hoist (2 tugger l floor), Hydraulic Boom truck, Laser Screed, Locomotive (all), Motor patrol, Mucking Machine; Pile Driving and Skid rig, Pit machine, Prestress Machines, Pump cretes (and similar types), Rock Drill (self-propelled), Rock Drill Truck mounted; Slip form paver, Straddle buggies, Tractor with boom and side boom, Trenching Mechine; Winch Tractors, Welding machines (6-9),
GROUP 2: Air Comporessor (3) (feeding a common receiver); Asphalt Spreader; boilers; bulldozers; Combination Backhoe end loader with Backhoe bucket 1/2 cu. yd. and under or with attachments; Corboy drilling machine; Grader, Elevating; Grouting machines; Guard rail post driver; Highlift Shovel or frontend loader; Hoist (automatic), Hoist (all elevators); Hoist (tugger and single drum); Post hole digger; rollers (all); Scoop (tractor drawn); Stone crushers; Tournapull; Winch trucks
GROUP 3: Air compressor - small 210 and under (1 to 5 not to exceed a total of 300 feet); Air compressor - large over 210; Air compressor (2) feeding a common receiver; Combination - small equipment operator; Concrete mixer (two bag & over); Conveyor, portable; Forklift-under 10 ton; Generator; Pumps (1 to 3 not to exceed a total of 300 feet); Pumps, well points; Steam generators; Tractors, farm & similar type; Welding machines (2 thru 5); Winches, 4 electric drillo winches
GROUP 4: Bull gang (crane erection crew); Heaters, mechanical (1 to 5); Oilers; Switchmen
Group 5: Fork lifts (Housing and commercial only)

ENGI0150P 06/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
BUILDING CONSTRUCTION		
POWER EQUIPMENT OPERATORS:		
GROUP 1	22.50	10.65+a
GROUP 2	21.15	10.65+a
GROUP 3	20.35	10.65+a
GROUP 4	19.55	10.65+a
GROUP 5	16.95	10.65+a

FOOTNOTE:
a. PAID HOLIDAYS: New Years Day, Fourth of July, Thanksgivng Day, Decoration Day, Labor Day and Christmas Day

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Mechanic, Asphalt Plant, Asphalt Spreader, Auto Grader; Batch Plant, Benoto (requires 2 Engineers), Boiler and Throttle

Valve, Boring Machine (road), Bulldozers (with engines of 140 net horse power or more) Caisson Rigs, Central Redi-mix Plant, Concrete Conveyor Systems, Concrete Power (over 27E cu. ft.), Concrete Paver (27E cu. ft. and under), Concrete Pumps/Grout cncrete placer (Truck Mounted), Concrete Tower, Cranes and backhoes (all), Cranes, Hammerhead Tower, Creter Crane, Derricks (all), Forklift (capble of hoisting and mechanically moving forks horizontally), Grader, Elevating, Highlift Shovels or Front End Loaders (over 3 yd bucket), Hoists (2 or more drums), Locomotives (all), Laser screed, Motor Patrol, Pile Drivers and Skid Rig, Pre-Stress Machines, Pump Cretes & Similar Types, Rock Drill (Self-Propelled), Rock Drill (self propelled Truck Mounted), Scoops (tractor drawn), Slip-Form Paver, Tournapull, Tractor with Boom & Side Boom, Trenching Machine (12 or more inches in width), Combination Backhoe Front End Loader Machine with backhoe 1/2 yd bucket or attachments.

GROUP 2: Air Compressor (600 cu. ft. and over), Bob Cat (over 3/4 cu. yd.), Boilers, Broom (all powered propelled), Bull Dozers with engines of less than 140 net horsepower, combination backhoe front end loader 1/2 yf bskhhoe or under, Compressor and Throttle Valve, Concrete Breaker (truck mounted), Concrete Mixer (of moore than 21 cu. ft. capacity), Forklift (with fixed or tilt mast), Greaser Engineer, Highlift shovel or front endloader 3 yd bucket and under, Hoists (1 drum), Hydrulic Boom Truck, Post Hole Digger (vehicle mounted), Pump Cretes (squeze crete type pumps, Gypsum, bulker , Rollers(all), Steam Generators, Stone Crushers, Stradddle Buggies, Tractors, Winch Trucks (with "a" frame.

GROUP 3: Buck Hoist, Combination (small equipment operator), .Conveyor (portable), Grouting Machine, Hoist Elevators (material and personnel), Hydraulic Power Units, Grouting and Pile Driving, Stud Welder, Trenching Machines less than 12 inches in width, Welding Machines (8 through 15).

GROUP 4: Bobcat (up to and including 3/4 cu. yd.). Compressor (over 210 cu. ft. and less than 600 cu. ft.), Generator (over 50 kw.), Heaters, Mechanical, Hoists (all elevator, permanent installation), Hoist (automatic), Hoist (tugger single drum), Oilers, Pumps, Well Points and electric submersible, Small Rubber Tired End Loaders (1/4 cu. yd. and under), Tractors (farm type) Welding Machines (2 through 8)

GROUP 5: Bobcats and forklifts (commercial or residential)

ENGI0150R 05/01/2003

	Rates	Fringes
LAKE, LAPORTE, PORTER AND ST. JOSEPH COUNTIES		
POWER EQUIPMENT OPERATOR HEAVY/HIGHWAY		
GROUP 1	29.75	10.92
GROUP 2	29.30	10.92
GROUP 3	28.85	10.92
GROUP 4	27.65	10.92
GROUP 5	26.60	10.92

POWER EQUITMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plants (construction), Asphalt plant

(permanent), Auto Patrol (Maintainer), Automatic Dry Batch Plant, Automated Concrete Placer, Automated Sub-Grader, Automated Slip Form Paver, Automated Finish Machine, Combination Backhoe Front, End Loader Machine (1/2 cu. yd.), Backhoe bucket or over or with attachments), Combination backhoe 1 cu yd, Backhoe bucket or over or with attachments, Ballast Regulator (RR), Belt Loader (stationary), Boring Machine (road), Bulldozer, Concrete Mixer(27 cu. ft. or over), Concrete Pump (truck mounted), Concrete Breaker (truck mounted and self-propelled), Core Drilling Machine, Cranes and Backhoes (all attachments), Cranes, Hammerhead, Creter Crane, Crushers (concrete, rock, recycling, etc.), Derricks , Derricks (traveling), Dredge Operator, Formless Curb and Gutter Machine (36 inches and over), Formless Curb and Gutter Machine under 36 inches, Gradall and Machines (of a like nature), Guardrail Post Driver (truck mounted), Lead Greaser, Helicopter, Highlift Shovel (3 yd. and over), Hoist (1 drum), Hoist (2, and 3 drums), Hydraulic Power Units (grouting, piledriving and extracting) Hydro or water blaster (self-propelled), Locomotive Operators, Mechanic, Welder, Mucking Machine, Panelboard Concrete Plant (central mix type), Paver (Hetherington), Pile Driver (Skid or Crawler), Road Paving Mixer, Rock Drill Crawler or Skid Rig, Rock Drill (truck Mounted), Ross Carrier, Roto Mill Grinder (36" and over), Roto mill grinder (less than 36"), Throttle Valve and Compressor or Clever Brooks Type Combination, Throttle Valve and Fireman Combination or Horizontal or Upright Boiler, Tournapull or similar type equipment, Tractor (boom), Tractor Drawn Belt Loader with attached Pusher (requires two engineers), Trench Machine, Tug Boat Operator, Wheel Excavator, Winch Tractor with "a" frame, Scoops, Turnapull or similar types machine used in Tandem (add $1.00 to class l hourly rate for each machine attached there to).

GROUP 2: Combination Backhoe Front End Loader Machine with less than 1/2 cu. yd., Backhoe Bucket or with attachments, Bituminous Mixer, Bituminous Paver, Bridge Deck Finisher, Concrete Mixer (less than 27 cu. ft.), Compressor and throttle valve, Compressor (common receiver 3), Greaser, Highlift Shovels (under 3 cu. yds.), Jersey Spreader or Base Paver, Pavement Bump Grinder (self-propelled), Roller (Asphalt, waterbound, Macadam, Bituminous Macadam, Brick Surface, Sheepfoot Roller (self- propelled with blade), Surface Heater and Planer, Tamper (mutiple vibrating, asphalt waterbound macadam, bituminouus macadam, brick surface), Tractor (push), Tractor with scoop, Widener, Apsco or similar type.

GROUP 3: Back Filler, Bituminous Distributor, Broom and Belt Machine, Bull Float, Compressor (common receiver 2), Concrete cutter wheel type (rockwell), Concrete Finishing Machine, Concrete Spreader (power driven), Digger, Post Hole (power driven), Finishing Machine and Bull Float, Forklift, Form Grader, Form Tamper (motor driven), Hydraulic (boom truck) when used for hauling materials, Laser screed, Mutiple Tamping Machine, Paving Breaker, Roller (earth and subbase material), Roller sheepfoot (self-propelled), Sub-grader, Tamper, Mutipile Vibrating (earth and subbase material), Tractaire with Drill, Tractor (with all drawn attachements except backhoe and including

Highlift, Endloader of 1 cu. yd. capacity and less.
GROUP 4: Air Compressors, Conveyor (all), Fireman on Boiler, Generator, Grout Machine, Power curing Spraying Machine (self-propelled), Broom (self-propelled), Seaman Tiller, Skid steer loaders, Spike Machine (RR), Stripping Machine (paint, self-propelled), Throttle Valve, Welding Machine, Well Points System.
GROUP 5: Deck Hand, Hetherington Driver, Mechanical Heater (1 to 5), Outboard or Inboard Motor Boat, Oiler, Power Saw (Concrete Power Driven), Water Pump, Grasscutter.

IRON0292A 06/01/2002

	Rates	Fringes
ST. JOSEPH and LAPORTE (REMAINDER OF COUNTY)		
IRONWORKERS	21.50	10.56

IRON0395A 06/01/2002

	Rates	Fringes
LAKE, PORTER AND LAPORTE (FROM LAKE MICHIGAN ON NORTH TO 50 MILES S. OF LAKE MICHIGAN ON THE S. AND FROM IN/IL STATE LINE ON W. TO 3 MILES E. OF IN. COUNTIES		
IRONWORKERS:		
STRUCTURAL & ORNAMENTAL	27.30	14.73
SHEETER	27.55	14.73

LABO0041A 06/01/2002

	Rates	Fringes
LAKE, LAPORTE AND PORTER COUNTIES		
LABORERS:		
BUILDING CONSTRUCTION:		
GROUP 1	24.33	5.55
GROUP 2	24.83	5.55
GROUP 3	25.33	5.55

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Mason or Plasterers); Railroad Workers, Masonry Wall Workers, (interior & exterior); Portable Water, Pumps with discharge up to 3 indches; Handling of Creosote Lumber or Like Treated Material (excluding railroad material); Asphalt Rakers and Lutemen; Earth compactors; Jackmen and Sheetmen Working Ditches Deeper than Six (6) Feet in Depth; Laborers Working Ditches Six (6) Feet in Depth or Deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layers (metallic or non-metallic); Motor Driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handler (bulk or bag); Handling of Toxic Materail Damaging to Clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water main and Cable Ducking (metallic and non-metallic); Screed Man or Screw Operator on Asphalt Paver; Chain Saw and Demolition Saw Operators; Concrete Saw; Concrete Conveyor Assemblers; Applying of Curing Compound; Sinking of Wellpoints; Dewatering Header Systems

Group 2: Plaster Tenders, Masons Tenders; Mortar Mixers; Welders (acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operators; Scaffold Builders for Plasterers; Scaffold Builders for Masons; Water Blast Machine Operators; Air Tool Operators and all Pneumatic Tool Operators, Air and Electric Vibrators and Chpping Hammer Operators; Asbestos Removal; Hazardous Waste Removal; All Boiler Setters Laborers, including expediters, bottom men, bell men, and Mason Tenders
Group 3: Dynamite Men; Drillers, Air Track or Wagon Drilling for explosives.

LABO0081B 04/01/2003

	Rates	Fringes
LABORERS		
HEAVY and HIGHWAY CONSTRUCTION:		
ST JOSEPH COUNTY		
GROUP 1	18.62	5.60
GROUP 2	18.92	5.60
GROUP 3	19.62	5.60
LAKE, LAPORTE AND PORTER COUNTIES		
GROUP 1	20.14	5.60
GROUP 2	20.44	5.60
GROUP 3	21.14	5.60

LABORERS (HEAVY AND HIGHWAY) GROUP DESCRIPTIONS
GROUP 1: Construction Laborer; Carpenter Tender; Fence Erector; Grade Checker; Guard Rail Erector; Continuous Steel Rod or Mat Installer; Wire Mesh Layer; Joint Man (Mortar, Mastic, and all other types); Lighting Installer (Permanent or Temporary); Lineman for Automatic Grade Maker on Paving Machines; Mortar Man; Multi-Plant Erector; Rip-rap Installer (all Products and Materials); Road Marking and Delineation Laborer; Setting and Placeing of all Precast Concrete Products; Sing Installation including Supporting Structure; Spraying of all Epoxy, Curing Compound, or Like Material; Flagperson; Air Tool, Power Tool, and Power Equipment Operator; Asphalt Raker Man; Batch Truck Dumper; Bridge Hand Rail Erector; Handler (bulk or bag cement); Chain Saw Man; Concrete Puddler; Concrete Rubber; Concrete Saw Operator; Core Drill Operator, Eye Level; Hand Blade Operator Hydro Seeder Man; Motor Driven Georgia Buggy Operator; Power Driven Compactor or Tamper Operator; Power Saw Operator; Pump Crete Assembly Man; Screed Man or Screw Man on Asphalt Paver; Rebar Installer; Sandblaster Man; Sealer Applicator for Asphalt (toxic); Setting and Placeing Prestressed on Precast Concrete Structural Members; Side Rail Setters (for Sidewalk, Side Ditches, Radii, and Pavement); Spreader Box Tender (manual or power driven); Straw Blower Man; Subsurface Drain and Culvert Pipe Layer; Transverse and and longitudinal Hand Bull Float Man; Concrete Conveyor; Horizonial Boring and Jackman and Sheetman; Pipe Grade Man; Winch and Windlass Operator Conduit Installer, Sod Layer.
GROUP 2: Cutting Torch Burner: Laser Beam Aligner; Manhole Erector; Sewer Pipe Layer; Water Line Installer, Temporary or Permanent; Welders (electric or Oxy-Acetylene).
GROUP 3: Air Track and Wagon Drillman; Dynamite and Powder Man; Concrete Barrier Rail Form Setter; General Laborer; Concrete

finisher; transverse and longitudinal hand; bull float man,
concrete saw, joint control cutting

LABO0645A 06/01/2002

	Rates	Fringes
ST JOSEPH COUNTY:		
LABORERS:		
BUILDING CONSTRUCTION:		
GROUP 1	18.38	5.25
GROUP 2	18.58	5.25
GROUP 3	18.68	5.25
GROUP 4	19.38	5.25

BUILDING CONSTRUCTION

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Plasterers); Ironworker Tenders; Mechanic Tenders; Window Washers and cleaners; Waterboys and Toolhousemen; Roofers Tenders; Railroad Workers; Masonry Wall Washers (interior and exterior); Cement Finisher Tenders; Carpenter Tenders; All Portable Water pumps with discharge up to (3) inches; Plaster Tenders; Mason Tenders; Flag & Signal Person.

GROUP 2: Waterproofing; Handling of Creosot Lumber or like treated material (excluding railroad material);Asphalt Rakers and Lutemen; Kettlemen; Air Tool Operators and all Pneumatic Tool Operators; Air and Electric Vibrators and Chipping Hammer Operators; Earth Compactors Jackmen and Sheetmen working Ditches deeper than (6) ft.in depth; Laborers working in ditches (6) ft.in depth or deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layer (metallic or non-metallic); Motor driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handlers (bulk or bag); Handling of Toxic Materials damaging to clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non-metallic); Screed Man or Screw OPerator on Asphalt Paver; Chain and Demolition Saw Operators; Concrete Conveyor Assemblers.

GROUP 3: Water Blast Machine Operator; Mortar Mixers; Welders (Acetylene or electric); Cutting Torch or Burner; Cement Nozzle. Laborers; Cement Gun Operator; Scaffold Builders when Work ing for Plasterers.

GROUP 4: Dynamite Men; Drillers - Air Track or Wagon Drilling for explosives Hazardous and Toxic material handler, asbestos removal or handler.

LABO0645B 04/01/2003

	Rates	Fringes
ST JOSEPH COUNTY		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1:	19.72	4.70
GROUP 2:	20.02	4.70
GROUP 3:	20.72	4.70

LABORER CLASSIFICATIONS (UTILITY CONSTRUCTION)

GROUP 1: Construction laborer; Fence erector; Flagger; Grade checker; Guard rail erector; Wire mesh layer; Joint man (mortar, mastic and all other types); Lighting installer (permanent or temporary); Lineman for automatic grade maker on paving machines; Mortar man; Multi-plateerector; Rip-rap installer (all products and materials); Road markin and delineation laborer; Setting and placing of all precast concrete products; Sign installation including supporting structure; Spraying of all epoxy, curing compound, or like material; sod layer; Air tool, power tool, and power equipment operator; Asphalt lute man; Asphalt raker man; Batch truck dumper; Bridge handrail erector; Handler (bulk or bag cement); Chain saw man; concrete puddler; concrete rubber; Concrete saw operator; Core drill operator, eye level; Hand blade operator; Hydro seeder man; Motor-driven Georgia buggy operator; Power-driven cmpactor or tamper operator; Power saw operator; Pumpcrete assembly man; Screed man or screw man or asphalt paver; Rebar installer; Sandblaster man; Sealer applicator for asphalt (toxic); Setting and placing prestressed or precast concrete structural members; Side rail setter (for sidewalks, side ditches, radii, and pavements); Spreader box tender (manual or power-driven); Straw blower man; Subsurface drain and culvert pipe layer; Transverse and longitudinal hand bull float man; Concrete conveyor assembly man; Horizontal boring and jacking man; Jackman and sheetman; Pipe grade man; winch and windlass operator

GROUP 2: Cutting torch burner; Laser beam aligner; Manhole erector; Sewer pipe layer; Water line installer, temporary or permanent; Welder (electric or exy-acetylene) in connection with waterline and sewer work, Hod Carrier (tending bricklayers); TVing and associated grouting of utility lines.

GROUP 3: Air track and wage drillman; Concrete barrier rail form setter; Dynamite and powder man; General leadman; Concrete Finisher; Transverse and Longitudinal hand Bullfloat man; Concrete Saw Joint Cutting

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LABO0999F 04/01/2003

	Rates	Fringes
LAKE COUNTY		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1	20.97	5.60
GROUP 2	21.27	5.60
GROUP 3	21.97	5.60
LAPORTE AND PORTER COUNTIES		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1	20.62	5.60
GROUP 2	20.92	5.60
GROUP 3	21.62	5.60

LABORERS CLASSIFICATIONS (UTILITY CONSTRUCTION)

GROUP 1: Construction laborer; Fence erector; Flagger; Grade checker; Guard rail erector; Wire mesh layer; Joint man (mortar, mastic and all other types); Lighting installer (permanent or temporary); Lineman for automatic grade maker on paving machines; Mortar man; Multi~plate erector; Rip~rap installer (all products and materials); Road marking and delineation laborer; Setting and

placing of all precast concrete products; Sign installation, including supporting structure; Spraying of all epoxy, curing compound, or like material; sod layer; Air tool, power tool, and power equipment operator; Asphalt lute man; Asphalt raker man; Batch truck dumper; Bridge handrail erector; Handler (bulk or bag cement); Chain saw man; concrete puddler; concrete rubber; Concrete saw operaator; Core drill operator, eye level; Hand blade; Hydro seeder man; Motor~driven Georgia buggy operator; Power~driven compactor or tamper operator; Power saw operator; Pumpcrete assembly man; Screed man or screw man on asphalt paver;Rebar installer; Sandblaster man; Sealer applicator for asphalt (toxic); Setting and placing prestressed or precast concrete structural members; Side raail setter (for sidewalks, side ditches, radii, and pavements); Spreader box tender (manual or power~driven); Straw blower man; Subsurface drain and culvert pipe layer; Transverse and longitudinal hand bull float man; Concrete conveyor assembly man; Horizontal boring and Jacking man; Jackman and sheetman; Pipe grade man, Winch and windlass operator.
GROUP 2: Cutting torch burner; Lase beam aligner; Manhole erector; Sewer pipe layer; Water line installer, temporary or permanent; Welder (electric or exy~acetylene) in connection with waterline and sewer work, Hod Carrier (tending bricklayers); TVing and associated grouting of utility lines.
GROUP 3: Air track and wagon drillman; Concrete barrier rail form setter; Dynamite and powder man; General leadman; Concrete Finisher; Transverse and Longitudinal hand Bullfloat man; Concrete Saw Joint Control cutting.

PAIN0027M 06/01/2001

	Rates	Fringes
LAKE COUNTY, West of Highway #41, including HAMMOND area		
GLAZIER	26.80	12.09

PAIN0091D 06/01/2002

	Rates	Fringes
LA PORTE (Everything East of Hwy 39 and North of Hwy 20, including the Cities of LaPorte and Michigan City); ST. JOSEPH COUNTIES		
PAINTERS		
Brush & Roller, Drywall Taping & Finishing, Vinyl/Paper Hanging	20.28	6.58
Spray	20.53	6.58

PAIN0460C 09/01/2001

	Rates	Fringes
PORTER, LAKE and the remainder of LA PORTE COUNTY)		
PAINTER	23.64	10.13
PAPER/VINYL HANGER	23.89	10.13
DRYWALL TAPING & FINISHING	24.69	10.13
SANDBLASTING, SPRAY PAINTING	24.59	10.13
DRYWALL TAPER, W/AMES TOOLS	25.19	10.13

PAIN1165F 06/01/2002

	Rates	Fringes
LAKE (EAST OF HIGHWAY #41 EXCLUDING HAMMOND AREA), LAPORTE and PORTER COUNTIES		
GLAZIERS	24.80	8.67

PAIN1165J 07/01/2002

	Rates	Fringes
ST. JOSEPH		
GLAZIERS	21.30	6.21

PLAS0101D 01/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
HEAVY/HIGHWAY		
CEMENT MASONS	22.81	7.00

PLAS0101P 06/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
BUILDING CONSTRUCTION		
CEMENT MASONS	21.34	7.75
PLASTERERS	21.66	8.20

PLAS0165A 01/01/2003

	Rates	Fringes
LAKE COUNTY (EXCEPT BY THE NORTHEAST SECTION LYING NORTH OF CROWN POINT AND EAST OF GRIFFITH)		
BUILDING CONSTRUCTION		
CEMENT MASONS	27.95	9.80
PLASTERERS	23.03	8.75
HEAVY & HIGHWAY CONSTRUCTION		
CEMENT MASONS	26.73	9.81

PLAS0406A 01/01/2003

	Rates	Fringes
LAKE COUNTY (NORTHWARD ON LAKE COUNTY LINE TO AND INCLUDING THE CITY OF MERRILLVILLE, BUT NOT THE CITY LIMITS OF CROWN POINT)		
PORTER COUNTY		
BUILDING CONSTRUCTION		
CEMENT MASONS	27.24	10.50
PLASTERERS	23.93	9.15
HEAVY AND HIGHWAY CONSTRUCTION		
CEMENT MASONS	26.73	9.81

PLAS0438A 01/01/2003

	Rates	Fringes
LAPORTE COUNTY, EASTERN PORTION OF PORTER COUNTY WEST TO BUT NOT INCLUDING CHESTERTON IN THE NORTH AND WEST TO AND INCLUDING KOUTS IN THE SOUTH		
BUILDING CONSTRUCTION		
CEMENT MASONS	28.06	11.05

HEAVY AND HIGHWAY CONSTRUCTION
CEMENT MASONS 26.42 9.81

PLUM0172P 06/04/2002
Rates Fringes
LA PORTE COUNTY (CITY OF LAPORTE)
AND ST. JOSEPH COUNTY
PLUMBER, PIPEFITTER
AND STEAMFITTER 25.00 8.20

PLUM0210A 06/01/2002
Rates Fringes
LAKE, LAPORTE (Excluding the City
of LaPorte) and PORTER COUNTIES
PLUMBERS 28.31 10.30

PLUM0597D 01/01/2003
Rates Fringes
LAKE (Entire County), LA PORTE
(Excluding the city of La Porte),
PORTER (Entire County)
PIPEFITTERS 33.56 10.10

ROOF0023P 06/01/2001
Rates Fringes
LA PORTE AND ST. JOSEPH COUNTIES
SLATE & TILE 23.40 6.25
COMPOSITION 22.90 6.25

ROOF0026P 06/01/2002
Rates Fringes
LAKE AND PORTER COUNTIES
ROOFERS 27.66 8.95

SFIN0669A 04/01/2003
Rates Fringes
LAKE AND PORTER COUNTIES
SPRINKLER FITTERS 30.84 6.10

SFIN0669B 04/01/2003
Rates Fringes
SPRINKLER FITTERS 29.64 6.10

SHEE0020P 07/01/2001
Rates Fringes
ST. JOSEPH COUNTY
SHEET METAL WORKERS 25.30 9.25

SHEE0020R 01/01/2003
Rates Fringes
LAKE, LAPORTE AND PORTER COUNTY
SHEET METAL WORKERS 28.52 12.06

TEAM0142P 06/01/2002

	Rates	Fringes
BUILDING, HEAVY AND HIGHWAY CONSTRUCTION		
(INCLUDING ASPHALT PAVING WORK)		
LAKE AND PORTER COUNTIES		
TRUCK DRIVERS;		
GROUP 1	25.50	7.59
GROUP 2	25.70	7.59
GROUP 3	25.90	7.59
GROUP 4	26.10	7.59
GROUP 5	26.45	7.59

BUILDING, HEAVY & HIGHWAY AND ASPHALT PAVING
GROUP 1: 2 and 3 Axle
GROUP 2: 4 Axle
GROUP 3: 5 Axle
GROUP 4: 6 Axle
GROUP 5: Over 6 Axles

BUILDING CONSTRUCTION ONLY		
LAPORTE COUNTY		
GROUP 1	14.00	A
GROUP 2	14.10	A
GROUP 3	14.25	A
GROUP 4	14.45	A

GROUP 1 4 Wheel and sheet metal trucks
GROUP 2 6 Wheel and semi trucks
GROUP 3 Winch Trucks
GROUP 4 Mechanics
FOOTNOTE:
A. $123.50 PER WEEK. PER EMPLOYEE

TEAM0364P 06/01/1997

	Rates	Fringes
TRUCK DRIVERS BUILDING CONSTRUCTION:		
ST JOSEPH COUNTY		
TRUCK DRIVERS BUILDING:		
GROUP 1	15.07	a
GROUP 2	15.28	a
GROUP 3	15.36	a
GROUP 4	15.41	a

a. 142.00 Per Week, Per Employee
TRUCK DRIVERS BUILDING CLASSIFICATIONS
GROUP 1: Pickup Trucks
GROUP 2: Single Axle Trucks
GROUP 3: Tandem, Triaxle and Fuel Trucks
GROUP 4: Semi Trailer Trucks
REMAINDING COUNTIES:

TRUCK DRIVERS HEAVY AND HIGHWAY		
GROUP 1	15.12	a
GROUP 2	15.17	a
GROUP 3	15.22	a
GROUP 4	15.27	a
GROUP 5	15.32	a
GROUP 6	15.37	a
GROUP 7	15.42	a
GROUP 8	15.47	a

GROUP 9	15.52	a
GROUP 10	14.97	a
GROUP 11	15.07	a

FOOTNOTE:
a. $162.30+.07 per week, per employee
TRUCK DRIVER HEAVY & HIGHWAY CLASSIFICATIONS
GROUP 1: Single axle straight trucks
GROUP 2: Single axle fuel and water trucks
GROUP 3: Single axle "dog-legs", and tandem truck or dog-legs;
Drivers on batch trucks, wet or dry over 3 (34E) batches and
tandem axle truck.
GROUP 4: Tandem axle fuel and Tandem axle water trucks; Drivers
on Bituminous Distributors, Two-Man.

GROUP 5: Tandem trucks over 15 tons payload; Single axle semi
trucks; Farm tractors hauling material; Mixer trucks (all types);
trucks pulling tilt-top trailer single axle; single axle lowboys;
truck mounted pavement breakers.

GROUP 6: Tandem trucks or "dog-legs"; Semi-water; Sprinkler;
Heavy equipment-type water wagons, 5,000 gallons and under;
Drivers on Bituminous Distributors, One-Man.

GROUP 7: Tri-axle trucks; tandem axle semi trucks; Equipment
when not self-loaded or pusher loaded, such as Koehring or
similar dumpsters, track trucks, Euclid bottom dump and hug
bottom dump, tournatrailer, tournarockers, atley wagons, or
similar equipment over 12cu. yds.; Mobile mixer trucks; trucks
pulling tilt-top trailer tandem axle; Low-boys tandem axle; Tri-
axle batch trucks and Tri-axle truck grease and maintenance truck
for servicing equipment.

GROUP 8: Tandem-tandem semi trucks; truck mechanics and welders;
Heavy equipment type water wagon over 5,000 gallons. Trucks
pulling tilt-top trailer tri-axle; Low-boys tandem-tandem axle.

GROUP 9: Low-boys, tandem tri-axle; Acey wagons up to and
including three (3) buckets.

GROUP 10: Pick-up trucks.

GROUP 11: Tenders; Greasers; Tire Men; Batch Board Tenders.

WELDER - Receive rate prescribed for craft performing operation
to which welding is incidental

WELDERS - Receive rate prescribed for craft performing operation
to which welding is incidental.
==========

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses

(29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

ACCOUNTING AND APPROPRIATION DATA

AA: 96 NA X 3122.0000 H6 X 08 2426 075535 96112 2520 LJ3G41
AMOUNT: $500,000.00

CLAUSES INCORPORATED BY FULL TEXT

52.232-5001 CONTINUING CONTRACTS (MAR 1995)--EFARS

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of $500,000.00 has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The contracting officer will promptly notify the contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the contractor shall give written notice to the contracting officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from

exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the contractor, by written notice delivered to the contracting officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the contractor, to reduce said reservation by the amount of such excess.

(End of clause)

SECTION 00830

Wage Rates

General Decision Number: IN030001 06/13/2003
Superseded General Decision No. IN020001
State: Indiana
Construction Type:
BUILDING
HEAVY
HIGHWAY
County(ies):
LA PORTE PORTER
LAKE ST JOSEPH
BUILDING CONSTRUCTION PROJECTS (does not include single family homes and apartments up to and including 4 stories, HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):
LA PORTE PORTER
LAKE ST JOSEPH

ASBE0017C 06/01/2002

	Rates	Fringes
LAKE AND PORTER COUNTIES		
ASBESTOS WORKERS	29.80	13.70
HAZARDOUS MATERIAL HANDLER (INCLUDES PREPARATION, WETTING, STRIPPING REMOVAL SCRAPPING, VACUUMING, BAGGING AND DISPOSAL OF ALL INSULATION MATERIALS, WHETHER THEY CONTAIN ASBESTOS		

OR NOT, FROM MECHANICAL SYSTEMS) 20.20 9.02

ASBE0075A 06/01/2002

	Rates	Fringes
REMAINING COUNTIES:		
ASBESTOS WORKERS	26.00	7.84
HAZARDOUS MATERIAL HANDLERS (includes preparation, wetting, stripping, removal, scrapping, vaccuming, bagging, and disposal of all insulation materials, whether they contain asbestos or not, from mechanical systems	15.55	4.50

BOIL0001E 07/01/2002

	Rates	Fringes
LAKE COUNTY, City of Hammond; North of 114th Street		
BOILERMAKERS	32.71	4.30+17.5%

BOIL0374P 07/01/2002

	Rates	Fringes
BOILERMAKERS	28.25	10.80

BRIN0004E 06/01/2001

	Rates	Fringes
MERRILLVILLE LAKE, LAPORTE AND PORTER COUNTIES		
BRICKLAYERS, STONMASONS, CAULKERS, POINTERS, CLEANERS	26.54	8.27
MARBLE SETTER, TILE SETTER, AND TERRAZZO WORKERS	26.00	8.77
TILE, TERRAZZO AND MARBLE FINISHERS	20.27	4.60

BRIN0004F 06/01/2001

	Rates	Fringes
SOUTH BEND ST. JOSEPH COUNTY		
BRICKLAYER, MASON, POINTER, CLEANER & CAULKER	22.81	7.02
MARBLE, TILE LAYER AND TERRAZZO WORKERS	21.60	5.47
TILE, TERRAZZO AND MARBLE FINISHERS	20.27	4.60

CARP0765A 06/01/2001

	Rates	Fringes
LAKE, LAPORTE AND PORTER COUNTIES		
HEAVY, HIGHWAY AND BUILDING CONSTRUCTION:		
Carpenters	27.15	11.77
Millwrights	27.25	11.77

CARP0888A 06/01/2002

	Rates	Fringes
ST JOSEPH COUNTY (ZONE 1)		
CARPENTERS	23.02	6.49
MILLWRIGHTS	20.72	5.41
HEAVY AND HIGHWAY CONSTRUCTION		
Carpenters	22.41	6.34

ELEC0153A 06/03/2002

	Rates	Fringes
ST JOSEPH COUNTY		
ELECTRICIANS	25.76	9.76
COMMUNICATION TECHNICIANS	20.94	6.78

Includes the installation, operation, inspection, modification, maintenance and repair of systems used for the transmission and reception of signals of any nature, for any purpose, including but not limited to, sound and voice transmission/transference systems, communication systems that transmit or receive information and/or control systems, television and video systems, micro-processor controlled fire alarm systems, and security systems and the performance of any task directly related to such installation or service. The scope of work shall exclude the installation of electrical power wiring and the installation of conduit raceways exceeding fifteen (15) feet in length.

ELEC0531A 09/02/2002

	Rates	Fringes
LAPORTE AND PORTER COUNTIES		
ELECTRICIANS	29.70	10.36

ELEC0697A 05/27/2002

	Rates	Fringes
LAKE COUNTY:		
ELECTRICIANS	32.10	11.62

ELEC0697D 10/01/2000

	Rates	Fringes
LAKE COUNTY		
TELECOMMUNICATIONS TECHNICIAN	22.36	9.12

Work covers low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V/SAT, bypass, CATV, WAN (WIDE AREA NETWORKS), LAN (local area networks), and ISDN (integrated system digital network). Does not cover any work which properly comes under the work description of Inside JW (Journeyman Wireman), but shall cover the pulling of wire in raceways, but not the installation of raceways.

ELEC1393Q 01/01/2003

	Rates	Fringes
LAKE & PORTER COUNTIES		
(Calumet Area, North of U.S.		

Hwy 30)
LINE CONSTRUCTION:
LINEMAN 28.30 2.75+22.5%
GROUNDMAN, EQUIPMENT OPERATOR:
(Diggers 5th wheel type trucks,
crawler type, D-4 and smaller,
bucket trucks and live boom
type line trucks) 21.65 2.75+22.5%
EQUIPMENT OPERATOR (Backhoe
over 1/2 yard bucket capacity,
cranes rated at 15 ton or more
capacity) 95% of J.L. Rate 26.07 2.75+22.5%
GROUNDMAN-TRUCK DRIVER 19.32 2.75+22.5%
GROUNDMAN 16.14 2.75+22.5%

ELEV0002P 07/03/2002
Rates Fringes
LAKE AND PORTER COUNTIES
ELEVATOR CONSTRUCTION:
ELEVATOR MECHANIC 34.475 7.455+a&b
FOOTNOTES:
a. Seven paid holidays: New Year's Day; Memorial Day;
Independence Day; Labor Day; Thanksgiving Day; Day after
Thanksgiving; & Christmas Day.
b. Employer contributes 8% of regular hourly rate to vacation
pay credit for employee who has worked in business more than
5 years; Employer contributes 6% of regular hourly rate to
vacation pay credit for employee who has worked in business less
than 5 years.

ELEV0057A 09/01/2001
Rates Fringes
LAPORTE AND ST. JOSEPH COUNTIES
ELEVATOR MECHANIC 25.145 7.455 a+b
FOOTNOTES:
a. Employer contributes 8% basic hourly rate for 5 years or
more of service or 6% basic hourly rate for 6 months to 5
years of service as vacation pay credit.
b. New Year's Day; Memorial Day; Independence Day;
Labor Day; Thanksgiving Day; Christmas Day plus the Friday
after Thanksgiving Day.

ENGI0150A 06/01/2002
Rates Fringes
LAKE, LAPORTE, PORTER COUNTIES
BUILDING CONSTRUCTION POWER EQUIPMENT OPERATORS:
GROUP 1 30.30 11.05
GROUP 2 29.80 11.05
GROUP 3 27.85 11.05
GROUP 4 26.65 11.05
GROUP 5 25.25 11.05
POWER EQUIPMENT OPERATOR CLASSIFICATIONS
GROUP 1: Asphalt Plant; Autograde; Batch Plant); Benoto
(requires 2 engineers; Boiler & throttle valve; Boring machine

(mining machine); Caisson Rigs; Central redi-mix plant; Combination Backhoe Endloader with backhoe bucket over 1/2 cu. yd. or with attachments; Combination tugger hoist & air compressor; Compressor & throttle; Concrete Breaker (truck mounted); Concrete conveyor; Concrete conveyor (truck mounted); Concrete paver over 27E cu.ft.; Concrete paver 27E cu. ft. & under; Concrete placing boom; Concrete pump/grout pump with boom (truck mounted); Concrete pump with boom (truck mounted); concrete tower; Cranes and Backhoes (All Attachments); Cranes, Hammerhead Tower; Creter Crane; Derricks (all); Derricks (traveling); Forklift lull type; Forklift, 10 ton & over; Gradall, Hoist 1, 2, and 3 drums; Hoist (2 tugger l floor), Hydraulic Boom truck, Laser Screed, Locomotive (all), Motor patrol, Mucking Machine; Pile Driving and Skid rig, Pit machine, Prestress Machines, Pump cretes (and similar types), Rock Drill (self-propelled), Rock Drill Truck mounted; Slip form paver, Straddle buggies, Tractor with boom and side boom, Trenching Mechine; Winch Tractors, Welding machines (6-9),
GROUP 2: Air Comporessor (3) (feeding a common receiver); Asphalt Spreader; boilers; bulldozers; Combination Backhoe end loader with Backhoe bucket 1/2 cu. yd. and under or with attachments; Corboy drilling machine; Grader, Elevating; Grouting machines; Guard rail post driver; Highlift Shovel or frontend loader; Hoist (automatic), Hoist (all elevators); Hoist (tugger and single drum); Post hole digger; rollers (all); Scoop (tractor drawn); Stone crushers; Tournapull; Winch trucks
GROUP 3: Air compressor - small 210 and under (1 to 5 not to exceed a total of 300 feet); Air compressor - large over 210; Air compressor (2) feeding a common receiver; Combination - small equipment operator; Concrete mixer (two bag & over); Conveyor, portable; Forklift-under 10 ton; Generator; Pumps (1 to 3 not to exceed a total of 300 feet); Pumps, well points; Steam generators; Tractors, farm & similar type; Welding machines (2 thru 5); Winches, 4 electric drillo winches
GROUP 4: Bull gang (crane erection crew); Heaters, mechanical (1 to 5); Oilers; Switchmen
Group 5: Fork lifts (Housing and commercial only)

ENGI0150P 06/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
BUILDING CONSTRUCTION		
POWER EQUIPMENT OPERATORS:		
GROUP 1	22.50	10.65+a
GROUP 2	21.15	10.65+a
GROUP 3	20.35	10.65+a
GROUP 4	19.55	10.65+a
GROUP 5	16.95	10.65+a

FOOTNOTE:
a. PAID HOLIDAYS: New Years Day, Fourth of July, Thanksgivng Day, Decoration Day, Labor Day and Christmas Day

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Mechanic, Asphalt Plant, Asphalt Spreader, Auto Grader; Batch Plant, Benoto (requires 2 Engineers), Boiler and Throttle

Valve, Boring Machine (road), Bulldozers (with engines of 140 net horse power or more) Caisson Rigs, Central Redi-mix Plant, Concrete Conveyor Systems, Concrete Power (over 27E cu. ft.), Concrete Paver (27E cu. ft. and under), Concrete Pumps/Grout cncrete placer (Truck Mounted), Concrete Tower, Cranes and backhoes (all), Cranes, Hammerhead Tower, Creter Crane, Derricks (all), Forklift (capble of hoisting and mechanically moving forks horizontally), Grader, Elevating, Highlift Shovels or Front End Loaders (over 3 yd bucket), Hoists (2 or more drums), Locomotives (all), Laser screed, Motor Patrol, Pile Drivers and Skid Rig, Pre-Stress Machines, Pump Cretes & Similar Types, Rock Drill (Self-Propelled), Rock Drill (self propelled Truck Mounted), Scoops (tractor drawn), Slip-Form Paver, Tournapull, Tractor with Boom & Side Boom, Trenching Machine (12 or more inches in width), Combination Backhoe Front End Loader Machine with backhoe 1/2 yd bucket or attachments.

GROUP 2: Air Compressor (600 cu. ft. and over), Bob Cat (over 3/4 cu. yd.), Boilers, Broom (all powered propelled), Bull Dozers with engines of less than 140 net horsepower, combination backhoe front end loader 1/2 yf bskhhoe or under, Compressor and Throttle Valve, Concrete Breaker (truck mounted), Concrete Mixer (of moore than 21 cu. ft. capacity), Forklift (with fixed or tilt mast), Greaser Engineer, Highlift shovel or front endloader 3 yd bucket and under, Hoists (1 drum), Hydrulic Boom Truck, Post Hole Digger (vehicle mounted), Pump Cretes (squeze crete type pumps, Gypsum, bulker , Rollers(all), Steam Generators, Stone Crushers, Stradddle Buggies, Tractors, Winch Trucks (with "a" frame.

GROUP 3: Buck Hoist, Combination (small equipment operator), .Conveyor (portable), Grouting Machine, Hoist Elevators (material and personnel), Hydraulic Power Units, Grouting and Pile Driving, Stud Welder, Trenching Machines less than 12 inches in width, Welding Machines (8 through 15).

GROUP 4: Bobcat (up to and including 3/4 cu. yd.). Compressor (over 210 cu. ft. and less than 600 cu. ft.), Generator (over 50 kw.), Heaters, Mechanical, Hoists (all elevator, permanent installation), Hoist (automatic), Hoist (tugger single drum), Oilers, Pumps, Well Points and electric submersible, Small Rubber Tired End Loaders (1/4 cu. yd. and under), Tractors (farm type) Welding Machines (2 through 8)

GROUP 5: Bobcats and forklifts (commercial or residential)

ENGI0150R 05/01/2003

	Rates	Fringes
LAKE, LAPORTE, PORTER AND ST. JOSEPH COUNTIES		
POWER EQUIPMENT OPERATOR HEAVY/HIGHWAY		
GROUP 1	29.75	10.92
GROUP 2	29.30	10.92
GROUP 3	28.85	10.92
GROUP 4	27.65	10.92
GROUP 5	26.60	10.92

POWER EQUITMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt plants (construction), Asphalt plant

(permanent), Auto Patrol (Maintainer), Automatic Dry Batch Plant, Automated Concrete Placer, Automated Sub-Grader, Automated Slip Form Paver, Automated Finish Machine, Combination Backhoe Front, End Loader Machine (1/2 cu. yd.), Backhoe bucket or over or with attachments), Combination backhoe 1 cu yd, Backhoe bucket or over or with attachments, Ballast Regulator (RR), Belt Loader (stationary), Boring Machine (road), Bulldozer, Concrete Mixer(27 cu. ft. or over), Concrete Pump (truck mounted), Concrete Breaker (truck mounted and self-propelled), Core Drilling Machine, Cranes and Backhoes (all attachments), Cranes, Hammerhead, Creter Crane, Crushers (concrete, rock, recycling, etc.), Derricks , Derricks (traveling), Dredge Operator, Formless Curb and Gutter Machine (36 inches and over), Formless Curb and Gutter Machine under 36 inches, Gradall and Machines (of a like nature), Guardrail Post Driver (truck mounted), Lead Greaser, Helicopter, Highlift Shovel (3 yd. and over), Hoist (1 drum), Hoist (2, and 3 drums), Hydraulic Power Units (grouting, piledriving and extracting) Hydro or water blaster (self-propelled), Locomotive Operators, Mechanic, Welder, Mucking Machine, Panelboard Concrete Plant (central mix type), Paver (Hetherington), Pile Driver (Skid or Crawler), Road Paving Mixer, Rock Drill Crawler or Skid Rig, Rock Drill (truck Mounted), Ross Carrier, Roto Mill Grinder (36" and over), Roto mill grinder (less than 36"), Throttle Valve and Compressor or Clever Brooks Type Combination, Throttle Valve and Fireman Combination or Horizontal or Upright Boiler, Tournapull or similar type equipment, Tractor (boom), Tractor Drawn Belt Loader with attached Pusher (requires two engineers), Trench Machine, Tug Boat Operator, Wheel Excavator, Winch Tractor with "a" frame, Scoops, Turnapull or similar types machine used in Tandem (add $1.00 to class l hourly rate for each machine attached there to).

GROUP 2: Combination Backhoe Front End Loader Machine with less than 1/2 cu. yd., Backhoe Bucket or with attachments, Bituminous Mixer, Bituminous Paver, Bridge Deck Finisher, Concrete Mixer (less than 27 cu. ft.), Compressor and throttle valve, Compressor (common receiver 3), Greaser, Highlift Shovels (under 3 cu. yds.), Jersey Spreader or Base Paver, Pavement Bump Grinder (self-propelled), Roller (Asphalt, waterbound, Macadam, Bituminous Macadam, Brick Surface, Sheepfoot Roller (self- propelled with blade), Surface Heater and Planer, Tamper (mutiple vibrating, asphalt waterbound macadam, bituminouus macadam, brick surface), Tractor (push), Tractor with scoop, Widener, Apsco or similar type.

GROUP 3: Back Filler, Bituminous Distributor, Broom and Belt Machine, Bull Float, Compressor (common receiver 2), Concrete cutter wheel type (rockwell), Concrete Finishing Machine, Concrete Spreader (power driven), Digger, Post Hole (power driven), Finishing Machine and Bull Float, Forklift, Form Grader, Form Tamper (motor driven), Hydraulic (boom truck) when used for hauling materials, Laser screed, Mutiple Tamping Machine, Paving Breaker, Roller (earth and subbase material), Roller sheepfoot (self-propelled), Sub-grader, Tamper, Mutipile Vibrating (earth and subbase material), Tractaire with Drill, Tractor (with all drawn attachements except backhoe and including

Highlift, Endloader of 1 cu. yd. capacity and less.
GROUP 4: Air Compressors, Conveyor (all), Fireman on Boiler, Generator, Grout Machine, Power curing Spraying Machine (self-propelled), Broom (self-propelled), Seaman Tiller, Skid steer loaders, Spike Machine (RR), Stripping Machine (paint, self-propelled), Throttle Valve, Welding Machine, Well Points System.
GROUP 5: Deck Hand, Hetherington Driver, Mechanical Heater (1 to 5), Outboard or Inboard Motor Boat, Oiler, Power Saw (Concrete Power Driven), Water Pump, Grasscutter.

IRON0292A 06/01/2002

	Rates	Fringes
ST. JOSEPH and LAPORTE (REMAINDER OF COUNTY)		
IRONWORKERS	21.50	10.56

IRON0395A 06/01/2002

	Rates	Fringes
LAKE, PORTER AND LAPORTE (FROM LAKE MICHIGAN ON NORTH TO 50 MILES S. OF LAKE MICHIGAN ON THE S. AND FROM IN/IL STATE LINE ON W. TO 3 MILES E. OF IN. COUNTIES		
IRONWORKERS:		
STRUCTURAL & ORNAMENTAL	27.30	14.73
SHEETER	27.55	14.73

LABO0041A 06/01/2002

	Rates	Fringes
LAKE, LAPORTE AND PORTER COUNTIES		
LABORERS:		
BUILDING CONSTRUCTION:		
GROUP 1	24.33	5.55
GROUP 2	24.83	5.55
GROUP 3	25.33	5.55

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Mason or Plasterers); Railroad Workers, Masonry Wall Workers, (interior & exterior); Portable Water, Pumps with discharge up to 3 indches; Handling of Creosote Lumber or Like Treated Material (excluding railroad material); Asphalt Rakers and Lutemen; Earth compactors; Jackmen and Sheetmen Working Ditches Deeper than Six (6) Feet in Depth; Laborers Working Ditches Six (6) Feet in Depth or Deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layers (metallic or non-metallic); Motor Driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handler (bulk or bag); Handling of Toxic Materail Damaging to Clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water main and Cable Ducking (metallic and non-metallic); Screed Man or Screw Operator on Asphalt Paver; Chain Saw and Demolition Saw Operators; Concrete Saw; Concrete Conveyor Assemblers; Applying of Curing Compound; Sinking of Wellpoints; Dewatering Header Systems

Group 2: Plaster Tenders, Masons Tenders; Mortar Mixers; Welders (acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operators; Scaffold Builders for Plasterers; Scaffold Builders for Masons; Water Blast Machine Operators; Air Tool Operators and all Pneumatic Tool Operators, Air and Electric Vibrators and Chpping Hammer Operators; Asbestos Removal; Hazardous Waste Removal; All Boiler Setters Laborers, including expediters, bottom men, bell men, and Mason Tenders
Group 3: Dynamite Men; Drillers, Air Track or Wagon Drilling for explosives.

LABO0081B 04/01/2003

	Rates	Fringes
LABORERS		
HEAVY and HIGHWAY CONSTRUCTION:		
ST JOSEPH COUNTY		
GROUP 1	18.62	5.60
GROUP 2	18.92	5.60
GROUP 3	19.62	5.60
LAKE, LAPORTE AND PORTER COUNTIES		
GROUP 1	20.14	5.60
GROUP 2	20.44	5.60
GROUP 3	21.14	5.60

LABORERS (HEAVY AND HIGHWAY) GROUP DESCRIPTIONS
GROUP 1: Construction Laborer; Carpenter Tender; Fence Erector; Grade Checker; Guard Rail Erector; Continuous Steel Rod or Mat Installer; Wire Mesh Layer; Joint Man (Mortar, Mastic, and all other types); Lighting Installer (Permanent or Temporary); Lineman for Automatic Grade Maker on Paving Machines; Mortar Man; Multi-Plant Erector; Rip-rap Installer (all Products and Materials); Road Marking and Delineation Laborer; Setting and Placeing of all Precast Concrete Products; Sing Installation including Supporting Structure; Spraying of all Epoxy, Curing Compound, or Like Material; Flagperson; Air Tool, Power Tool, and Power Equipment Operator; Asphalt Raker Man; Batch Truck Dumper; Bridge Hand Rail Erector; Handler (bulk or bag cement); Chain Saw Man; Concrete Puddler; Concrete Rubber; Concrete Saw Operator; Core Drill Operator, Eye Level; Hand Blade Operator Hydro Seeder Man; Motor Driven Georgia Buggy Operator; Power Driven Compactor or Tamper Operator; Power Saw Operator; Pump Crete Assembly Man; Screed Man or Screw Man on Asphalt Paver; Rebar Installer; Sandblaster Man; Sealer Applicator for Asphalt (toxic); Setting and Placeing Prestressed on Precast Concrete Structural Members; Side Rail Setters (for Sidewalk, Side Ditches, Radii, and Pavement); Spreader Box Tender (manual or power driven); Straw Blower Man; Subsurface Drain and Culvert Pipe Layer; Transverse and and longitudinal Hand Bull Float Man; Concrete Conveyor; Horizonial Boring and Jackman and Sheetman; Pipe Grade Man; Winch and Windlass Operator Conduit Installer, Sod Layer.
GROUP 2: Cutting Torch Burner: Laser Beam Aligner; Manhole Erector; Sewer Pipe Layer; Water Line Installer, Temporary or Permanent; Welders (electric or Oxy-Acetylene).
GROUP 3: Air Track and Wagon Drillman; Dynamite and Powder Man; Concrete Barrier Rail Form Setter; General Laborer; Concrete

finisher; transverse and longitudinal hand; bull float man,
concrete saw, joint control cutting

LABO0645A 06/01/2002

	Rates	Fringes
ST JOSEPH COUNTY:		
LABORERS:		
BUILDING CONSTRUCTION:		
GROUP 1	18.38	5.25
GROUP 2	18.58	5.25
GROUP 3	18.68	5.25
GROUP 4	19.38	5.25

BUILDING CONSTRUCTION

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Plasterers); Ironworker Tenders; Mechanic Tenders; Window Washers and cleaners; Waterboys and Toolhousemen; Roofers Tenders; Railroad Workers; Masonry Wall Washers (interior and exterior); Cement Finisher Tenders; Carpenter Tenders; All Portable Water pumps with discharge up to (3) inches; Plaster Tenders; Mason Tenders; Flag & Signal Person.

GROUP 2: Waterproofing; Handling of Creosot Lumber or like treated material (excluding railroad material);Asphalt Rakers and Lutemen; Kettlemen; Air Tool Operators and all Pneumatic Tool Operators; Air and Electric Vibrators and Chipping Hammer Operators; Earth Compactors Jackmen and Sheetmen working Ditches deeper than (6) ft.in depth; Laborers working in ditches (6) ft.in depth or deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layer (metallic or non-metallic); Motor driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handlers (bulk or bag); Handling of Toxic Materials damaging to clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non-metallic); Screed Man or Screw OPerator on Asphalt Paver; Chain and Demolition Saw Operators; Concrete Conveyor Assemblers.

GROUP 3: Water Blast Machine Operator; Mortar Mixers; Welders (Acetylene or electric); Cutting Torch or Burner; Cement Nozzle. Laborers; Cement Gun Operator; Scaffold Builders when Work ing for Plasterers.

GROUP 4: Dynamite Men; Drillers - Air Track or Wagon Drilling for explosives Hazardous and Toxic material handler, asbestos removal or handler.

LABO0645B 04/01/2003

	Rates	Fringes
ST JOSEPH COUNTY		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1:	19.72	4.70
GROUP 2:	20.02	4.70
GROUP 3:	20.72	4.70

LABORER CLASSIFICATIONS (UTILITY CONSTRUCTION)

GROUP 1: Construction laborer; Fence erector; Flagger; Grade checker; Guard rail erector; Wire mesh layer; Joint man (mortar, mastic and all other types); Lighting installer (permanent or temporary); Lineman for automatic grade maker on paving machines; Mortar man; Multi-plateerector; Rip-rap installer (all products and materials); Road markin and delineation laborer; Setting and placing of all precast concrete products; Sign installation including supporting structure; Spraying of all epoxy, curing compound, or like material; sod layer; Air tool, power tool, and power equipment operator; Asphalt lute man; Asphalt raker man; Batch truck dumper; Bridge handrail erector; Handler (bulk or bag cement); Chain saw man; concrete puddler; concrete rubber; Concrete saw operator; Core drill operator, eye level; Hand blade operator; Hydro seeder man; Motor-driven Georgia buggy operator; Power-driven cmpactor or tamper operator; Power saw operator; Pumpcrete assembly man; Screed man or screw man or asphalt paver; Rebar installer; Sandblaster man; Sealer applicator for asphalt (toxic); Setting and placing prestressed or precast concrete structural members; Side rail setter (for sidewalks, side ditches, radii, and pavements); Spreader box tender (manual or power-driven); Straw blower man; Subsurface drain and culvert pipe layer; Transverse and longitudinal hand bull float man; Concrete conveyor assembly man; Horizontal boring and jacking man; Jackman and sheetman; Pipe grade man; winch and windlass operator

GROUP 2: Cutting torch burner; Laser beam aligner; Manhole erector; Sewer pipe layer; Water line installer, temporary or permanent; Welder (electric or exy-acetylene) in connection with waterline and sewer work, Hod Carrier (tending bricklayers); TVing and associated grouting of utility lines.

GROUP 3: Air track and wage drillman; Concrete barrier rail form setter; Dynamite and powder man; General leadman; Concrete Finisher; Transverse and Longitudinal hand Bullfloat man; Concrete Saw Joint Cutting

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LABO0999F 04/01/2003

	Rates	Fringes
LAKE COUNTY		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1	20.97	5.60
GROUP 2	21.27	5.60
GROUP 3	21.97	5.60
LAPORTE AND PORTER COUNTIES		
LABORERS (UTILITY CONSTRUCTION)		
GROUP 1	20.62	5.60
GROUP 2	20.92	5.60
GROUP 3	21.62	5.60

LABORERS CLASSIFICATIONS (UTILITY CONSTRUCTION)

GROUP 1: Construction laborer; Fence erector; Flagger; Grade checker; Guard rail erector; Wire mesh layer; Joint man (mortar, mastic and all other types); Lighting installer (permanent or temporary); Lineman for automatic grade maker on paving machines; Mortar man; Multi~plate erector; Rip~rap installer (all products and materials); Road marking and delineation laborer; Setting and

placing of all precast concrete products; Sign installation, including supporting structure; Spraying of all epoxy, curing compound, or like material; sod layer; Air tool, power tool, and power equipment operator; Asphalt lute man; Asphalt raker man; Batch truck dumper; Bridge handrail erector; Handler (bulk or bag cement); Chain saw man; concrete puddler; concrete rubber; Concrete saw operaator; Core drill operator, eye level; Hand blade; Hydro seeder man; Motor~driven Georgia buggy operator; Power~driven compactor or tamper operator; Power saw operator; Pumpcrete assembly man; Screed man or screw man on asphalt paver;Rebar installer; Sandblaster man; Sealer applicator for asphalt (toxic); Setting and placing prestressed or precast concrete structural members; Side raail setter (for sidewalks, side ditches, radii, and pavements); Spreader box tender (manual or power~driven); Straw blower man; Subsurface drain and culvert pipe layer; Transverse and longitudinal hand bull float man; Concrete conveyor assembly man; Horizontal boring and Jacking man; Jackman and sheetman; Pipe grade man, Winch and windlass operator.
GROUP 2: Cutting torch burner; Lase beam aligner; Manhole erector; Sewer pipe layer; Water line installer, temporary or permanent; Welder (electric or exy~acetylene) in connection with waterline and sewer work, Hod Carrier (tending bricklayers); TVing and associated grouting of utility lines.
GROUP 3: Air track and wagon drillman; Concrete barrier rail form setter; Dynamite and powder man; General leadman; Concrete Finisher; Transverse and Longitudinal hand Bullfloat man; Concrete Saw Joint Control cutting.

PAIN0027M 06/01/2001

	Rates	Fringes
LAKE COUNTY, West of Highway #41, including HAMMOND area		
GLAZIER	26.80	12.09

PAIN0091D 06/01/2002

	Rates	Fringes
LA PORTE (Everything East of Hwy 39 and North of Hwy 20, including the Cities of LaPorte and Michigan City); ST. JOSEPH COUNTIES		
PAINTERS		
Brush & Roller, Drywall Taping & Finishing, Vinyl/Paper Hanging	20.28	6.58
Spray	20.53	6.58

PAIN0460C 09/01/2001

	Rates	Fringes
PORTER, LAKE and the remainder of LA PORTE COUNTY)		
PAINTER	23.64	10.13
PAPER/VINYL HANGER	23.89	10.13
DRYWALL TAPING & FINISHING	24.69	10.13
SANDBLASTING, SPRAY PAINTING	24.59	10.13
DRYWALL TAPER, W/AMES TOOLS	25.19	10.13

PAIN1165F 06/01/2002

	Rates	Fringes
LAKE (EAST OF HIGHWAY #41 EXCLUDING HAMMOND AREA), LAPORTE and PORTER COUNTIES		
GLAZIERS	24.80	8.67

PAIN1165J 07/01/2002

	Rates	Fringes
ST. JOSEPH		
GLAZIERS	21.30	6.21

PLAS0101D 01/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
HEAVY/HIGHWAY		
CEMENT MASONS	22.81	7.00

PLAS0101P 06/01/2002

	Rates	Fringes
ST. JOSEPH COUNTY		
BUILDING CONSTRUCTION		
CEMENT MASONS	21.34	7.75
PLASTERERS	21.66	8.20

PLAS0165A 01/01/2003

	Rates	Fringes
LAKE COUNTY (EXCEPT BY THE NORTHEAST SECTION LYING NORTH OF CROWN POINT AND EAST OF GRIFFITH)		
BUILDING CONSTRUCTION		
CEMENT MASONS	27.95	9.80
PLASTERERS	23.03	8.75
HEAVY & HIGHWAY CONSTRUCTION		
CEMENT MASONS	26.73	9.81

PLAS0406A 01/01/2003

	Rates	Fringes
LAKE COUNTY (NORTHWARD ON LAKE COUNTY LINE TO AND INCLUDING THE CITY OF MERRILLVILLE, BUT NOT THE CITY LIMITS OF CROWN POINT)		
PORTER COUNTY		
BUILDING CONSTRUCTION		
CEMENT MASONS	27.24	10.50
PLASTERERS	23.93	9.15
HEAVY AND HIGHWAY CONSTRUCTION		
CEMENT MASONS	26.73	9.81

PLAS0438A 01/01/2003

	Rates	Fringes
LAPORTE COUNTY, EASTERN PORTION OF PORTER COUNTY WEST TO BUT NOT INCLUDING CHESTERTON IN THE NORTH AND WEST TO AND INCLUDING KOUTS IN THE SOUTH		
BUILDING CONSTRUCTION		
CEMENT MASONS	28.06	11.05

HEAVY AND HIGHWAY CONSTRUCTION
CEMENT MASONS 26.42 9.81

PLUM0172P 06/04/2002
Rates Fringes
LA PORTE COUNTY (CITY OF LAPORTE)
AND ST. JOSEPH COUNTY
PLUMBER, PIPEFITTER
AND STEAMFITTER 25.00 8.20

PLUM0210A 06/01/2002
Rates Fringes
LAKE, LAPORTE (Excluding the City
of LaPorte) and PORTER COUNTIES
PLUMBERS 28.31 10.30

PLUM0597D 01/01/2003
Rates Fringes
LAKE (Entire County), LA PORTE
(Excluding the city of La Porte),
PORTER (Entire County)
PIPEFITTERS 33.56 10.10

ROOF0023P 06/01/2001
Rates Fringes
LA PORTE AND ST. JOSEPH COUNTIES
SLATE & TILE 23.40 6.25
COMPOSITION 22.90 6.25

ROOF0026P 06/01/2002
Rates Fringes
LAKE AND PORTER COUNTIES
ROOFERS 27.66 8.95

SFIN0669A 04/01/2003
Rates Fringes
LAKE AND PORTER COUNTIES
SPRINKLER FITTERS 30.84 6.10

SFIN0669B 04/01/2003
Rates Fringes
SPRINKLER FITTERS 29.64 6.10

SHEE0020P 07/01/2001
Rates Fringes
ST. JOSEPH COUNTY
SHEET METAL WORKERS 25.30 9.25

SHEE0020R 01/01/2003
Rates Fringes
LAKE, LAPORTE AND PORTER COUNTY
SHEET METAL WORKERS 28.52 12.06

TEAM0142P 06/01/2002

	Rates	Fringes
BUILDING, HEAVY AND HIGHWAY CONSTRUCTION		
(INCLUDING ASPHALT PAVING WORK)		
LAKE AND PORTER COUNTIES		
TRUCK DRIVERS;		
GROUP 1	25.50	7.59
GROUP 2	25.70	7.59
GROUP 3	25.90	7.59
GROUP 4	26.10	7.59
GROUP 5	26.45	7.59

BUILDING, HEAVY & HIGHWAY AND ASPHALT PAVING
GROUP 1: 2 and 3 Axle
GROUP 2: 4 Axle
GROUP 3: 5 Axle
GROUP 4: 6 Axle
GROUP 5: Over 6 Axles

BUILDING CONSTRUCTION ONLY		
LAPORTE COUNTY		
GROUP 1	14.00	A
GROUP 2	14.10	A
GROUP 3	14.25	A
GROUP 4	14.45	A

GROUP 1 4 Wheel and sheet metal trucks
GROUP 2 6 Wheel and semi trucks
GROUP 3 Winch Trucks
GROUP 4 Mechanics
FOOTNOTE:
A. $123.50 PER WEEK. PER EMPLOYEE

TEAM0364P 06/01/1997

	Rates	Fringes
TRUCK DRIVERS BUILDING CONSTRUCTION:		
ST JOSEPH COUNTY		
TRUCK DRIVERS BUILDING:		
GROUP 1	15.07	a
GROUP 2	15.28	a
GROUP 3	15.36	a
GROUP 4	15.41	a

a. 142.00 Per Week, Per Employee
TRUCK DRIVERS BUILDING CLASSIFICATIONS
GROUP 1: Pickup Trucks
GROUP 2: Single Axle Trucks
GROUP 3: Tandem, Triaxle and Fuel Trucks
GROUP 4: Semi Trailer Trucks
REMAINDING COUNTIES:

TRUCK DRIVERS HEAVY AND HIGHWAY		
GROUP 1	15.12	a
GROUP 2	15.17	a
GROUP 3	15.22	a
GROUP 4	15.27	a
GROUP 5	15.32	a
GROUP 6	15.37	a
GROUP 7	15.42	a
GROUP 8	15.47	a

GROUP 9	15.52	a
GROUP 10	14.97	a
GROUP 11	15.07	a

FOOTNOTE:
a. $162.30+.07 per week, per employee
TRUCK DRIVER HEAVY & HIGHWAY CLASSIFICATIONS
GROUP 1: Single axle straight trucks
GROUP 2: Single axle fuel and water trucks
GROUP 3: Single axle "dog-legs", and tandem truck or dog-legs;
Drivers on batch trucks, wet or dry over 3 (34E) batches and
tandem axle truck.
GROUP 4: Tandem axle fuel and Tandem axle water trucks; Drivers
on Bituminous Distributors, Two-Man.

GROUP 5: Tandem trucks over 15 tons payload; Single axle semi
trucks; Farm tractors hauling material; Mixer trucks (all types);
trucks pulling tilt-top trailer single axle; single axle lowboys;
truck mounted pavement breakers.

GROUP 6: Tandem trucks or "dog-legs"; Semi-water; Sprinkler;
Heavy equipment-type water wagons, 5,000 gallons and under;
Drivers on Bituminous Distributors, One-Man.

GROUP 7: Tri-axle trucks; tandem axle semi trucks; Equipment
when not self-loaded or pusher loaded, such as Koehring or
similar dumpsters, track trucks, Euclid bottom dump and hug
bottom dump, tournatrailer, tournarockers, atley wagons, or
similar equipment over 12cu. yds.; Mobile mixer trucks; trucks
pulling tilt-top trailer tandem axle; Low-boys tandem axle; Tri-
axle batch trucks and Tri-axle truck grease and maintenance truck
for servicing equipment.

GROUP 8: Tandem-tandem semi trucks; truck mechanics and welders;
Heavy equipment type water wagon over 5,000 gallons. Trucks
pulling tilt-top trailer tri-axle; Low-boys tandem-tandem axle.

GROUP 9: Low-boys, tandem tri-axle; Acey wagons up to and
including three (3) buckets.

GROUP 10: Pick-up trucks.

GROUP 11: Tenders; Greasers; Tire Men; Batch Board Tenders.

WELDER - Receive rate prescribed for craft performing operation
to which welding is incidental

WELDERS - Receive rate prescribed for craft performing operation
to which welding is incidental.
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Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses

(29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01100

GENERAL PROVISIONS

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-- End of Section Table of Contents --

SECTION 01100

GENERAL PROVISIONS

PART 1 GENERAL

1.1 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in two copies. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet specific requirements.

a. The Contractor shall be responsible for the professional quality, technical accuracy and the coordination of all designs, drawings and specifications furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise designs, drawings and specifications.

b. Neither the Government's review, approval or acceptance of, nor payment for, any of the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause or action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligence in connection with designs, drawings and specifications, furnished under this contract.

c. The rights and remedies of the Government provided for under the contract are in addition to any other rights and remedies provided by law.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Schedule; G,CS

Drug Free Workplace

Refer to FAR CLAUSE entitled DRUG FREE WORKPLACE in SECTION 00700.

Pre-Construction Survey; G,DC

SD-02 Shop Drawings

Coordination with Others; G,TSC

The coordination schedule shall be submitted.

SD-11 Closeout Submittals

As-Built Drawings; G,TSC

As-Built Drawings shall be submitted as indicated in the AS-BUILT DRAWINGS paragraphs of this section.

Construction Documentation Report; G,HE

Construction documentation shall be submitted as indicated in the CONSTRUCTION DOCUMENTATION REPORT paragraph of this section.

1.4 REAL ESTATE

All required right-of-way to do the work is available to the Contractor, and is included on the contract drawings. In the event the Contractor requires any additional access roads and storage areas, he shall obtain such areas at his own expense. The Contractor shall furnish to the Contracting Officer copies of all legal documents or leases permitting his use of private or other properties other than included in the contract.

1.5 AS-BUILT DRAWINGS

a. Working As-Built Drawings. The Contractor shall revise and maintain during the execution of the project two (2) sets of full-scale paper prints by red-line process to show the as-built conditions. These working as-built drawings shall be kept current and available for review on the jobsite at all times. Changes from the contract drawings that are made in the work or additional information that might be uncovered in the course of construction shall be accurately, legibly and neatly recorded and dated as they occur by means of details and notes. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional material and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail that is utilized in the contract drawings. The working as-built drawings will be jointly reviewed for accuracy and completeness by the COR and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working as-built drawings as specified herein, the COR will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the working

as-built drawings.

b. Preliminary Submittal. Within 15 calendar days after completion of the work, the Contractor shall prepare and deliver two (2) copies of the working as-built drawings to the COR for review and approval. If upon review, the working as-built drawings are found to contain errors and/or omissions, they will be returned to the Contractor within 15 calendar days for corrections. The Contractor shall complete the corrections and return the working as-built drawings within 15 calendar days to the COR for approval. The working as-built drawings will be reviewed within 15 calendar days. Upon approval, the working as-built drawings will be returned to the Contractor for use in preparation of final as-built drawings.

c. Final As-Built Drawing Submittal. Within 30 calendar days after receipt of the approved working as-built drawings and the Corps-provided digital contract drawings in Microstation .DGN format, the Contractor shall prepare and make the final submittal. This submittal shall consist of one set of completed final as-built drawings in Microstation .DGN format on CD-ROM, one set (1) of mylars, two (2) sets of blue line prints, and the approved working as-built drawings. When final revisions have been completed, each drawing shall show the wording, "RECORD DRAWING, AS-BUILT" signature block as provided with the Microstation .DGN files. Revisions to each drawing shall be noted and dated in the revision block.

d. All paper prints and reproducible drawings shall become the property of the Government upon final approval. A withholding of $ 20,000, representing the Government’s expense to prepare Final As-Built Drawings (including CD-ROM, mylar and blue line prints), will be withheld from the amounts due to the Contractor when progress under the contract reaches 80% completion. This amount will be withheld until the Final As-Built Drawings (including CD-ROM, mylar and blue line prints) are accepted by the Government. If an acceptable As-Built Drawing submittal is not provided within 60 days from the date the Contractor received the approved working as-built drawings, the Government reserves the right to unilaterally modify the contract to de-obligate the aforementioned amount from the final Contract amount.

e. No separate payment will be made for providing approved as-built drawings required under this contract. All costs in connection therewith shall be considered a subsidiary obligation of the Contractor.

1.6 INSPECTION

The presence or absence of an inspector shall not relieve the Contractor of responsibility for the proper execution of work in accordance with the plans and specifications.

1.7 CONDITION OF EXISTING STRUCTURES

Prior to commencement of operations by the contractor at the site, the contractor shall perform a detailed survey and videotape the conditions of all existing structures that may be affected by the contractor's operations. The survey and videotaping will be conducted in coordination

with local interests, contractor, Corps of Engineers Representative, and private parties concerned and will be sufficient in scope to provide advance agreement among all concerned as to the condition of the existing structures. The contractor shall be responsible for full and active participation in such pre-construction surveys and videotaping of existing structures as deemed necessary to permit determination and accurate assessment of any subsequent damage to existing structures that may be incurred during the period of the contract.

There shall be no separate payment for the Condition of Existing Structures survey and videotaping. The cost to the contractor for this survey and videotaping is deemed included in the Pre-Construction Survey bid item.

1.8 PRESERVATION OF HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

If, during construction activities, the Contractor observes items that might have historical or archaeological value, such observations shall be reported immediately to the Contracting Officer's Representative (COR) so that the appropriate authorities may be notified and a determination can be made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

1.9 MINIMUM AMOUNT OF INSURANCE REQUIRED

In accordance with FAR clause entitled "WORK IN A GOVERNMENT INSTALLATION", the following minimum insurance coverages and limits are required. The term "Installation" referred to in this clause is deemed to mean Corps of Engineers project site or federal property.

a. Evidence of the following minimum insurance coverages and limits, with concurrent policy expiration dates, must be received by the Department of the Army, Corps of Engineers before the contractor can begin work. This evidence must be on a fully-completed, signed and dated ACCORD Certificate of Insurance. In addition, policy endorsements must be issued by or in behalf of the insuring company or companies naming the Department of the Army, Corps of Engineers as Additional Interest Insured regarding the work. The endorsements must also provide that the Department of the Army, Corps of Engineers receive direct written notice at least thirty (30) calendar days before the effective date of any material changes to, any cancellation of, or any non-renewal of these coverages during the time period of the contractor's work.

b. Should the coverages expire or be terminated during the time period of the contractor's work, the Department of the Army, Corps of Engineers must receive an ACCORD Certificate of Insurance as evidence of renewal or replacement insurance coverage and the supporting policy endorsements as specified above. The required evidence of renewal replacement insurance must be received by either the contracting Officer or Contracting Officer's Representative at least ten (10) calendar days before the coverage expires or is being terminated.

c. All insuring companies must be rated A- (Excellent), or better, by A.M. Best Company, an independent insurance rating service. The ACCORD Certificate of Insurance must identify the A.M. Best numbers for each of the insuring companies.

Comprehensive General Liability
(Occurrence policy form only)

General Aggregate	$2,000,000
Products/Completed Operations	$2,000,000
Each Occurrence	$1,000,000
Fire Damage Legal Liability	$ 50,000

Comprehensive Automobile Liability
(Including Hired Automobile Liability
and Non-Owned Automobile Liability)

Combined Single Limit	$1,000,000

Employers' Liability

Each Occurrence	$ 500,000
Policy Limit	$ 500,000
Each Employee	$ 500,000

(Or Statutory Limits if higher)

Workers Compensation
(As required by State Law or Federal Law)

Umbrella Liability
(Occurrence policy form only)

Each Occurrence and Aggregate	$5,000,000

d. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

1.10 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This clause specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE entitled "DEFAULT (FIXED PRICE CONSTRUCTION)." In order for the Contracting Officer to award a time extension under this clause, the weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON A FIVE (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL
22	22	21	7	4	3	3

AUG	SEP	OCT	NOV	DEC 1-15	DEC 16-31

5	3	5	7	3	12

Upon acknowledgement of Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled workday.

The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delays exceeds the number of days anticipated in paragraph 2, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

1.11 PERMITS AND RESPONSIBILITIES

It shall be the responsibility of the Contractor to obtain all permits/licenses required for this project as required under SECTION 00700 CONTRACT CLAUSES paragraph entitled "PERMITS AND RESPONSIBILITIES" and SECTION 01355 ENVIRONMENTAL PROTECTION paragraph entitled "ENVIRONMENTAL PERMITS AND COMMITMENTS".

1.12 COORDINATION WITH OTHERS

The Contractor shall schedule and coordinate its operations affecting other Contractors, Government hired labor forces, utilities, and/or property within the work limits. Such scheduling shall be accomplished with lead time sufficient for coordination of all involved parties as necessary for timely completion of each contract feature. As evidence of this compliance with this General Provision, the Contractor shall furnish the COR with a copy of each coordinated schedule prior to commencing operations affecting such other Contractors, utilities, and/or property.

1.12.1 Utility and Pipeline Coordination

The U.S. Army Corps of Engineers and the East Chicago Waterway Management District issued a letter to all known utility entities requesting information regarding the location and status of their utilities in the vicinity of the site. The information received has been incorporated into the contract drawings however, it may not be all-inclusive.

The Contractor shall study the construction plans and site and know in detail the locations of all utilities, not limited to those potentially abandoned and active utilities and pipelines as shown on the plans. Coordination shall commence by contacting and notifying potential utility and pipeline owners that construction activities have commenced. Upon completion of contacting and notifying potential owners, the Contractor shall schedule site visits for the utility and pipeline owners to field survey, stake and mark utility easements, service lines, and service closures points resulting from the demolition and razing of the ECI Refinery. Contractor coordination with all utility companies is required prior to initiating subsurface investigations and earthwork activity. A copy of each coordinated schedule shall be furnished to the Contracting Officer for approval.

The Contractor shall also be responsible for assuring utility work or relocations of utilities by the owner does not interfere with project activities prior to and during construction once work begins.

1.12.2 BP Amoco/Atlantic Richfield Company (ARCO)

The Contractor shall coordinate with and provide and maintain access to the site for BP Amoco/ARCO and its consultants. The Contractor is responsible for maintaining the access roads used by BP Amoco/ARCO for the operation and maintenance of the existing oil recovery system. The Contractor must also provide vehicle decontamination services for BP Amoco/ARCO and its consultants' vehicles that enter and then leave the site. A coordination meeting between the Contractor, BP Amoco/ARCO, its consultants, the East Chicago Waterway Management District and the Corps of Engineers will be arranged after contract award and prior to the initiation of field activities.

1.12.3 Air Monitors and Monitoring Operations

The Contractor shall coordinate with the U.S. Geological Survey (USGS) and shall provide access to the existing air monitors located on the site on the northern, eastern, and western edges of the site. Contact information is provided in the following paragraph. USGS will be on-site to collect air samples every 6 days. The Contractor shall perform work in such a manner as to avoid damage to the air monitoring equipment, and must avoid placing diesel equipment in proximity to the air monitors such that the diesel exhaust would contaminate samples. The air monitoring being performed by USGS is independent of any air monitoring required for this contract, and the results of this monitoring may be made available to the Contractor upon request. See SECTION 01355 ENVIRONMENTAL PROTECTION for other Contractor air monitoring requirements.

1.12.4 Points of Contact for Potential Utilities

Brian Woodberry
NIPSCO
801 E. 86th Ave.
Merrillville, IN 46410
219-647-4299

David Woodsmall
Marathon
277 Streamwood Drive
Valparaiso, IN 46383
219-477-4001

Randy Thomson
Marathon
1900 West Avenue H
Griffith, IN 46319
219-924-8577

Kevin Connelly
Ameritech
302 South East Street
Crown Point, IN 46307
219-662-4402

Dan Olson

East Chicago Sanitary District
5201 Indianapolis Boulevard
East Chicago IN 46312
219-391-8466

Joe Drozd
East Chicago Water Dept.
400 E. Chicago Avenue
East Chicago IN 46312
219-391-8423

Skip Richards or Larry Malnor
Amoco Pipeline Company
28100 Torch Parkway
Warrenville, IL 60555
630-836-5100

Barry Reminder
Buckeye Pipeline Company
123 Pipeline Drive
Griffith, IN 46319
219-924-6603

John Phelps
Transmontaigne-Pipeline Inc.
200 Mansell Court East, Suite 600
Roswell, GA 30076-4853
770-518-3651

Fred Hipshear
Wolverine
8105 Valleywood Lane
Portage, MI 49024
616-323-2491 x24

David Kalet
BP Whiting Refinery
2815 Indianapolis Blvd.
Mail Code 122
Whiting, IN
46394
219-473-3445

Lisa Bailey
Explorer Pipeline
3737 Michigan Street
Hammond, IN 46323
219-989-8267

Gary Hanten
Phillips Pipeline
400 E. Columbus Drive
East Chicago, IN 46312
219-397-6666 x304

Jim Peiguss
Praxair, Inc.
4520 Kennedy Avenue
East Chicago, IN 46312

219-391-5127

Point of Contact for U.S. Geological Survey (Field Sampling Manager)

Tim Willoughby
U.S. Geological Survey
5957 Lakeside Blvd.
Indianapolis, IN 46278
317-290-3333, ext. 166

Point of Contact for U.S. Geological Survey (Field Sampling Supervisor)

Richard Duwelius
U.S. Geological Survey
5957 Lakeside Blvd.
Indianapolis, IN 46278
317-290-3333, ext. 174

Points of Contact for Oil Boom

Sid Glenn
Arcadis G&M, Inc.
35 East Wacker Drive, Suite 1000
Chicago, Illinois 60601
312-425-4120

Ryan Groves
Indiana Department of Environmental Management
State Cleanup Section
P.O. Box 6015
Indianapolis, IN 466205-6015
317-233-8905

1.13 SPECIAL SAFETY REQUIREMENTS

The Contractor shall comply with all applicable Federal, State and Local safety requirements including, but not limited to, those provided in EM 385-1-1.

1.14 ONE CALL SYSTEMS FOR EXCAVATORS

One call systems, established by law, are operated by owners of underground facilities for excavators. Upon notification by an excavator through a one call system, all participating operators of underground facilities in a covered area will identify and locate their facilities. One call systems will be identified by contacting the following:

INDIANA UTILITY CHECK
1-800-382-5544

1.15 ELECTRICAL POWER LINES

The Contractor shall study the construction plans and site and know in detail all locations of power lines within the rights of way. Prior to performing any construction operation adjacent to power lines, appropriate danger signs shall be provided where any equipment scheduled for use on the site is capable of contacting such lines. To confirm the location of underground lines, the Contractor shall contact the appropriate council listed in paragraph "One Call Systems for Excavators". Aerial power lines shall either

be shut off and a positive means taken to prevent the lines from being energized, or clearances required by EM 385-1-1, Safety and Health Requirements Manual, shall be maintained. In the area belonging to Northern Indiana Public Service Company (NIPSCO), the electric lines are energized. Work shall not proceed into dangerous areas without an additional workman being assigned the crew to watch the movements of other personnel and equipment to assure that designated clearances are maintained.

1.16 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard, governing the following: lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines; day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland), as applicable.

1.17 TEMPORARY LIGHTS AND SIGNALS REQUIRED BY THE COAST GUARD

All temporary lights and signals required by the U.S. Coast Guard must be displayed during the required work. Information regarding required signals and lights may be obtained from the Commander, U.S. Ninth Coast Guard District, 1240 East Ninth Street, Cleveland, Ohio 44199.

1.18 INDIANA SALES AND USE TAX

a. This contract is a construction contract which contains separate amounts applicable to the performance of the services and the furnishing of the materials as defined in State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002. Notwithstanding any other provisions of this contract, the contract price does not include any amount for Indiana Sales and Use Tax on materials to be incorporated by the Contractor or Subcontractor into the structure or improvement to real estate. The Contractor or Subcontractor should provide his supplier with a State of Indiana General Exemption Certificate for Construction Contractors (Form ST-134) with respect to such property.

b. For the purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002, the Contractor, pursuant to the requirements of the solicitation shall furnish prior to contract award a breakdown separating pricing (1) materials to be incorporated into the structure or improvement to real estate, (2) services and other obligations of the construction contract, and (3) the total contract price. This breakdown is for the sole purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002 with regard to separate pricing of services and materials and has no other contractual significance.

c. Any subcontracts awarded hereunder shall also contain separate amounts applicable to the performance of services and the furnishing of the materials.

1.19 BORROW/DISPOSAL SITES AND QUARRIES

a. Definitions. For purposes of this general provision, the following definitions apply:

(1) Government-Identified borrow/disposal site or quarry means a site or quarry suggested by the Government for use by the Contractor concerning which all applicable federal, state and local environmental statutory and regulatory requirements may or may not have been satisfied.

(2) Commercial/existing borrow/disposal site or quarry means a site or quarry which is either in the business of providing borrow material or has been used as a disposal site for other purposes and is available for use; and concerning which all applicable federal, state and local environmental statutory and regulatory requirements have been satisfied.

(3) Contractor-chosen borrow/disposal site or quarry means a site or quarry chosen by the Contractor for use concerning which none or not all of the applicable Federal, State and Local environmental statutory and regulatory requirements have been satisfied.

b. If a borrow/disposal site or quarry is identified in the contract specifications as Government-Identified, it is the responsibility of the Contractor to ascertain whether or not all Federal, State and Local environmental statutory and regulatory requirements have been satisfied. If any of such requirements have not been satisfied, the Contractor is required to follow the procedures set forth in paragraph d(4) below. Use of such a site or quarry must be approved by the Contracting Officer.

c. If the Contractor chooses a commercial/existing borrow/disposal site or quarry, the Contractor is not required to ensure that all applicable federal, state and local environmental statutory and regulatory requirements have been satisfied, but is required to provide to the Government either, as a minimum, a letter from the owner/operator of the commercial/existing borrow/disposal site or quarry certifying that all environmental and operating permits have been acquired, or actual copies of all such environmental and operating permits. Use of such a site or quarry must be approved by the Contracting Officer. The Contractor shall adhere to all rules, regulations and business practices required by the owner/operator.

d. If a Contractor decides to use a Contractor-chosen borrow/disposal site or quarry, it is the Contractor's responsibility to ensure that all applicable Federal, State and Local environmental statutory and regulatory requirements have been satisfied. Use of such a site or quarry must be approved by Contracting Officer, and such approval will not be granted unless all applicable requirements have been met and such use of the site does not pose significant environmental impacts.

(1) The specific requirements which must be met by the Contractor before a Contractor-chosen (or, when applicable, a Government-recommended) site or quarry will be approved by the Contracting Officer include, at a minimum, but are not necessarily limited to, compliance with the following environmental laws, regulations and executive orders:

Federal Laws, Regulations, and Executive Orders

Name	Agency
Section 404, Clean Water Act (Permit)	U.S. Army Corps of Engineers, Detroit District (IN/WI) Chicago District (IL)
Section 10, River and Harbor Act of 1899 (Permit)	U.S. Army Corps of Engineers
Emission Limitations, Clean Air Act	U.S. Environmental Protection Agency
Section 9, Endangered Species Act of 1973	U.S. Fish and Wildlife Service, Barrington Office (IL) Bloomington Office (IN) Green Bay Office (WI)
Section 703, Migratory Bird Treaty Act of 1918	U.S. Fish and Wildlife Service
Section 106, National Historic Preservation Act of 1966	Illinois Historic Preservation Agency (IL Indiana Department of Natural Resources, Division of Historic Preservation (IN) State Historical Society of Wisconsin (WI)
Surface Mining Control and Reclamation Act of 1977	Bureau of Mines
Resource Conservation and Recovery Act of 1976	U.S. Environmental Protection Agency
Toxic Substance Control Act	U.S. Environmental Protection Agency

Indiana State Statutes

Name	Agency
Construction Within a Floodway (Permit)	Indiana Department of Natural Natural Resources, Division of Water
Section 401, Clean Water Act (Waiver of Permit)	Indiana Department of Environmental Management
Section 402,	Indiana Department of Environmental

Clean Water Act Management
(NPDES Permit)

It is the Contractor's responsibility to ensure that all applicable federal, state and local environmental statutory and regulatory requirements are satisfied, regardless of their presence on, or absence from, the above list.

(2) It is the responsibility of the Government to ensure that the requirements of the National Environmental Policy Act (NEPA) have been complied with. If the Contractor decides to use a site or quarry which has not previously undergone an environmental review under NEPA (either Government-recommended or Contractor-chosen), the Contractor will so notify the Contracting Officer, who shall arrange for such an environmental review. This review and compliance process may include inter-agency coordination and the preparation and circulation for public review of environmental documentation. It is the responsibility of the Contractor to allow sufficient time in the construction schedule to accommodate this review and compliance process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the process. The review and compliance process requires a minimum time frame of ninety (90) days, but could take substantially longer, possibly up to one year or, in unusual circumstances, even longer than one year, to complete. Any construction delays caused by the need to conduct an environmental review under NEPA shall be solely the responsibility of the Contractor.

(3) It is also the responsibility of the Government to perform Section 7 consultation under the Endangered Species Act, to coordinate with the U.S. Fish and Wildlife Service and appropriate state wildlife agencies under the Fish and Wildlife Coordination Act, and to perform a Farmland Conversion Impact Rating under the Farmland Protection Policy Act for all Government-Identified or Contractor-Chosen sites. This shall be accomplished concurrently with the NEPA environmental review process. It is the responsibility of the Contractor to allow sufficient time in the construction schedule to accommodate these consultation and coordination requirements as well as the NEPA review process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the completion of these consultation and coordination requirements.

(4) The Government cannot guarantee that any Government-Identified or Contractor-chosen site is capable of complying with all applicable Federal, State and Local environmental statutory and regulatory requirements and may reject any such site proposed for use by the Contractor for environmental reasons. If the Contracting Officer does not approve the use of a Government-recommended or Contractor-chosen borrow/disposal site or quarry because not all applicable federal, state or local environmental statutory and regulatory requirements have been satisfied, or because the Government determines that such site or quarry could not be used for environmental reasons as a result of the environmental review under NEPA, it is the Contractor's responsibility to locate an alternate site or quarry and to perform all necessary reviews to obtain approval of the use of such alternative site or quarry. Any construction delays caused by

the need to locate an alternate site or quarry, shall be solely the responsibility of the Contractor.

(5) Nothing in this clause shall relieve the Contractor from the responsibility of obtaining all non-environmental permits and licenses which may be required under federal, state or local statutes, regulations and ordinances.

1.20 CONSTRUCTION SCHEDULE

An initial baseline Construction Schedule shall be submitted within the time specified in the FAR clause of SECTION 00700. This schedule shall use the date of Notice to Proceed as the start date and shall show the work completed on the Contract Required Completion Date, as indicated in the FAR clause entitled COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK in Section 00800. In addition to the initial baseline schedule, six copies of an updated Construction Schedule Submittal shall be included with each payment estimate/request for payment. These schedule updates shall show both the initial baseline schedule and an update showing the actual work progress to date and a projection of the work schedule for the remainder of the Contract. All schedule submittals shall include a tabulated earnings projection with the estimate earnings for each month of the Contract duration.

1.21 CONSTRUCTION DOCUMENTATION REPORT

A Construction Documentation Report (CDR) will be developed by the Government for the Obstruction Removal project. Once construction is complete this report will be delivered to regulatory agencies for incremental RCRA/TSCA corrective action approval. In order to prepare this report, various documents shall be compiled and provided to the Government by the Contractor. An outline of the Obstruction Removal construction, that will assist the Contractor in his compiling and organizing efforts, is included below:

I. As-builts Drawings and Modifications

II. Product Description

a. Introduction

b. Purpose

c. Location

d. History

e. Design

i. Assumptions

ii. Analysis

iii. Decisions

f. Construction

i. Special Contract Construction Requirements

ii. Important Construction Activities and Modifications

iii. Problems Encountered and Methods to Overcome Problems

g. Comparison of information obtained during design stages with that obtained during construction

III. Field and Laboratory Test Data, including original test results, QA documentation for the results, and any retests needed because of failures, and documentation that any failures were corrected.

a. Material

i. Laboratory Testing Reports

ii. Analytical Test Results for Fill Borrow Sites

iii. Final Report for Fill Borrow Sites

b. Placement

i. Closure Report-Site Assessment Report

IV. Construction Quality Assurance Plan (CQA)

a. Construction Quality Control Plan (CQC)

i. Final CQC Plan

ii. Certification Letter

b. Supporting Documentation

i. Daily Construction Quality Control Management Reports and Checklists

ii. QA checks

V. Air Monitoring Summary

The Contractor shall compile the following documents and submit them to the Government so that the CDR can be completed by in-house personnel after construction is complete.

I. As-bults Drawings (Specification 01100)

II. Field and Laboratory Test Data

a. Laboratory Testing Reports (Specification 02115)

b. Analytical Test Results for Fill Borrow Sites (Specification 02231)

c. Final Report for Fill Borrow Sites (Specification 02231)

d. Closure Report-Site Assessment Report (Specification 02115)

III. Construction Quality Assurance Plan

a. Final Construction Quality Control Plan (Specification 01451)

b. Daily Construction Quality Control Reports and Checklists (Specification 01451)

IV. Air Monitoring Summary (Specification 01355)

Within 30 days of completion of the site work, the Contractor shall submit all documents requested for the CDR in .pdf format on CD-ROMs and as hard copies. All documents that fall into the above-mentioned categories should be placed on the same CD. If multiple CDs are needed to complete the compilation, then the CD should be labeled with what type of document is included on the CD and also that it is 1 of 2, 2 of 2, etc. Also, the Contractor shall save the .pdf files with the name of the document, as referenced above, in the filename (abbreviations are allowed), as well as the date. The Contractor shall submit two (2) copies of CDs and hard copies for Government approval. Upon Government approval, the Contractor shall submit five (5) copies of the CDs and hard copies. A sum of $30,000 will be retained until final approval of the submittals for the CDR.

PART 2 PRODUCTS - Not Applicable

PART 3 EXECUTION - Not Applicable

-- End of Section --

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SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

Payment items for performing and completing work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described under this clause. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, equipment, and any associated Contractor quality control, environmental protection, safety equipment and personal protective equipment (PPE), tests and reports, and all work required for which separate payment is not otherwise provided. The Contractor shall submit for approval by the Contracting Officer a proposed price breakdown for all lump sum bid items. The contractor is responsible for providing the PPE as needed (if any) and including the cost in the Lump Sum for each Bid Item. No additional compensation will be made for changes in PPE requirements during the life of the project.

1.1.1 MOBILIZATION AND DEMOBILIZATION (Bid Item 0001)

1.1.1.1 Payment

Payment will be made at the applicable lump sum price for mobilization and demobilization of all the Contractor's plant and equipment to complete the work. Payment constitutes full compensation for all plant, labor, equipment, and incidentals associated with mobilization and demobilization. Payment for the performance and payment bonds shall be incidental to this bid item as required under this contract and no separate payment will be made. See SECTION 00800 SPECIAL CONTRACT REQUIREMENTS, paragraph 1.11 for further information.

1.1.1.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.2 TEMPORARY CONSTRUCTION FACILITIES (Bid Item 0002)

1.1.2.1 Payment

Payment will be made at the contract lump sum price for the temporary construction office, utilities, security, construction signs and all associated costs as described in SECTION 01500 TEMPORARY CONSTRUCTION FACILITIES and SECTION 01580 PROJECT SIGN AND SAFETY SIGN. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.2.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.3 TURBIDITY CURTAIN SYSTEM (Bid Item 0004)

1.1.3.1 Payment

Payment will be made at the contract lump sum price for the installation and maintenance of the turbidity curtain system through out pipe removal as described in SECTION 02216 SILT TURBIDITY CURTAIN. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

The Contractor shall be paid 50% of the applicable lump sum price upon installation of the turbidity curtain system. A further 30% of the Contractor's compensation shall be paid throughout the duration of the Contract at a rate equivalent to the overall progress of the work. The final 20% of the applicable lump sum price shall be paid upon removal of the shoring system and removal and disposal of the silt turbidity curtain.

1.1.3.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.4 DEMOLITION OF STEEL AND CONCRETE STRUCTURES (Bid Item 0013AA, 0013AB, 0013AC, 0013AD, 0013AE & 0013AF)

1.1.4.1 Payment

Payment shall be made at the contract lump sum price for the demolition and removal of valves, pipes, steel and concrete structures and other items associated with the structure as shown on the plans and described in SECTION 02220 DEMOLITION. Payment shall also include handling, transporting, on-site stockpiling of removed items and backfilling. Payment shall be at the lump sum price regardless of the size of the item removed and no separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, trench boxes excavation dewatering, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

1.1.4.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.5 VEHICLE AND EQUIPMENT DECONTAMINATION (Bid Item 00017)

1.1.5.1 Payment

Payment at the contract lump sum price will be made for providing a decontamination facility/pad for vehicles and equipments leaving the site as described in SECTION 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS and SECTION 01355 ENVIRONMENTAL PROTECTION. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.5.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.6 CONSTRUCTION EMISSIONS AIR MONITORING (Bid Item 0018)

1.1.6.1 Payment

Payment shall be made at the contract lump sum price for obstruction removal air monitoring, including air monitoring equipment; sampling, analytical testing and reporting, including Quality Assurance/Quality Control (QA/QC); and equipment maintenance. Obstruction removal air monitoring shall consist of analysis of air samples for PAHs, PCBs, and VOCs, in conjunction with real-time monitoring for particulates, as outlined in SECTION 01355 ENVIRONMENTAL PROTECTION. The costs incurred for particulate monitoring shall be included within the contract unit cost of this bid item. Payment constitutes full compensation for all labor, materials, equipment, sample analysis, power supply, and all other incidentals necessary to complete the work .

1.1.6.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.1.7 PRE-CONSTRUCTION SURVEY (Bid Item 0019)

1.1.7.1 Payment

Payment at the contract lump sum price will be made for the pre-construction survey to identify the locations of all above ground and underground utilities and obstructions prior to construction as described in SECTION 01100 GENERAL PROVISIONS and SECTION 02220 DEMOLITION. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work.

1.1.7.2 Unit of Measure

Unit of measure: Lump Sum (LS)

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the performance and completion of work in this contract for which contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular unit price item, shall be included in the listed unit price item most closely associated with the work involved. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, equipment, and any associated Contractor quality control, environmental protection, safety equipment and personal protective equipment (PPE), tests and reports required for each of the unit price items. The contractor is responsible for determining the level of PPE and including the cost in the unit price. No additional compensation will be made for changes in PPE requirements during the life of the project.

1.2.1 CLEARING (Bid Item 0003)

1.2.1.1 Payment

Payment will be made at the contract unit price for clearing as described in SECTION 02231 CLEARING. Payment constitutes full compensation for all plant, labor, equipment, materials, handling, transporting, on-site

stockpiling, and incidentals necessary to complete the work. The refilling existing depressions will not be measured for payment but will be considered as a subsidiary obligation under the above item.

1.2.1.2 Measurement

Areas cleared shall be measured for payment in acres. Measurement shall be a survey of the areas accepted for payment or other methods agreed to prior to clearing.

1.2.1.3 Unit of Measure

Unit of measure: Acres (AC)

1.2.2 SHORING SYSTEM (INCLUDES DREDGING, DISPOSAL AND BACKFILLING)(Bid Item 0005AA, 0005AB & 0005AC)

1.2.2.1 Payment

Payment will be at the contract unit price for construction and removal of each shoring system and dredging and transporting of the dredged material within each shoring system and backfilling in the canal as described in SECTION 02250 SHORING SYSTEM, 02464 METAL SHEET PILING, 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS, 05502 METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS and 02325 DREDGING. Payment constitutes full compensation for all plant, labor, equipment, materials, and incidentals necessary to complete the work. Dredging conditions shown on the drawings indicate conditions at time of survey and actual conditions may vary.

1.2.2.2 Measurement

Dredged materials will not be measured for payment. Measurement for payment of each shoring system will be determined by the satisfactory removal of the pipes and backfilling within each shoring system.

1.2.2.3 Unit of Measure

Unit of measure: Each (EA)

1.2.3 [Enter Appropriate Subpart Title Here]1.2.3 CUTTING & REMOVING, CAPPING PIPES IN THE CANAL

14 INCHES DIA PIPE (DREDGING AREA 2)(Bid Item 0006AA)
10 INCHES DIA PIPE (DREDGING AREA 1)(Bid Item 0006AB)
10 INCHES DIA PIPE (DREDGING AREA 3)(Bid Item 0006AC)
6 INCHES DIA PIPE (DREDGING AREA 1)(Bid Item 0006AD)

1.2.3.1 Payment

Payment shall be made at the contract unit price for cutting, removing, plugging or capping all subsurface pipelines as shown on the plans and described in SECTION 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES. Payment shall also include handling, transporting, and on-site stockpiling of the cut pipes. Payment shall be at the unit price of the pipe diameter and no separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work and subjected to field verification including an independent contract to perform a check of work.

1.2.3.2 Measurement

Measurement shall be based on the number of pipelines removed, plugged and capped.

1.2.3.3 Unit of Measure

Unit of measure: Each (EA)

1.2.4 [Enter Appropriate Subpart Title Here]1.2.4 DEMOLITION OF 24" DIA DEMOLITION OF 24" DIA CONCRETE FILLED PIPES
(BOLLARDS/MOORING POSTS) (Bid Item 0007)
DEMOLITION OF 24" DIA CONCRETE PADS (Bid Item 0008)
DEMOLITION OF GATE VALVES (Bid Item 0009)
DEMOLITION OF WATER VALVES (Bid Item 0010)
DEMOLITION OF VALVES (Bid Item 0011)
DEMOLITION OF PIPES (SIZE VARIES) (Bid Item 0012)
DEMOLITION OF HYDRANTS (Bid Item 0014)
DEMOLITION OF MANHOLE (Bid Item 0015)

1.2.4.1 Payment

Payment shall be made at the contract unit price for demolition and removal of posts, pads, valves, pipes, steel and concrete structures as shown on the plans and described in SECTION 02220 DEMOLITION. Payment shall also include handling, transporting, on-site stockpiling of removed items and backfilling. Payment shall be at the unit price regardless of the size of the item removed and no separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, trench boxes, excavation, dewatering, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

1.2.4.2 Measurement

Measurement shall be based on the number of obstruction removed.

1.2.4.3 Unit of Measure

Unit of measure: Each (EA)

1.2.5 REMOVE EXISTING FENDERS AND WALL ACCESSORIES (Bid Item 0016)

1.2.5.1 Payment

Payment shall be made at the contract unit price for removal of the existing fender and wall accessories along the sheet pile structure as shown on the plans and described in SECTION 02220 DEMOLITION. Payment shall also include handling, transporting, and on-site stockpiling of fender and wall accessories. No separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, and associated incidentals. Payment shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

1.2.5.2 Measurement

Measurement shall be based on the length of fender removed and stockpiled.

1.2.5.3 Unit of Measure

Unit of measure: Lineal Feet (LF)

1.2.6 FILLING PIT / VAULT (Bid Item 0020)

1.2.6.1 Payment

Payment shall be made at the contract unit price for cutting and backfilling structures as shown on the plans and described in SECTION 02220 DEMOLITION. Payment shall also include handling, transporting, on-site stockpiling of removed items and backfilling. Payment shall be at the unit price regardless of the size of backfilling required. No separate payment shall be made for furnishing, placing, and removing any necessary shoring, bracing, trench boxes excavation dewatering, and associated incidentals.

1.2.6.2 Measurement

Measurement shall be based on the number pit / vault backfilled.

1.2.6.3 Unit of Measure

Unit of measure: Each (EA)

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01312

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PART 2 PRODUCTS (NOT USED)

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SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site (http://155.80.93.251). This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

Administration
Finances
Quality Control
Submittal Monitoring
Scheduling
Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", SECTION 01330, SUBMITTAL PROCEDURES, and SECTION 01451, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become

available.

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

Hardware

IBM-compatible PC with 500 MHz Pentium or higher processor

128+ MB RAM for workstation / 256+ MB RAM for server

1 GB hard drive disk space for sole use by the QCS system

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader, 8x speed or higher

SVGA or higher resolution monitor (1024 x 768, 256 colors)

Mouse or other pointing devise

Windows compatible printer (Laser printer must have 4+ MB of RAM)

Connection to the Internet, minimum 56 BPS

Software

MS Windows 98, ME, NT, or 2000

Word Processing software compatible with MS Word 97 or newer

Latest version of : Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher

Electronic mail (E-mail), MAPI compatible

Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control(CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government

will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in SECTION 01451, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by SECTION 01451, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch

list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and *OSHA Form 300*.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts". The updated schedule data shall be included with each pay request submitted by the Contractor. Reference SECTION 01100 GENERAL PROVISIONS for information on the schedule submittal requirements.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.1 File Medium

The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Disk or CD-ROM Labels

The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The Government will provide the file names to be used by the Contractor with the QCS software.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least weekly, or more frequently if directed by the Contracting Officer, the Contractor shall generate and submit a QCS export file to the Government. Additionally, on a monthly basis, the Contractor shall generate and submit an export file along with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions.

The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be

returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

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SECTION 01330

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PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

Certificates of insurance.
Surety bonds.
List of proposed subcontractors.
List of proposed products.
Construction Progress Schedule.
Submittal schedule.
Schedule of values.
Health and safety plan.
Turbidity curtain work plan.
Quality control plan.
Environmental protection plan.

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the contractor for integrating the product or system into the project.

Drawings prepared by or for the contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes

assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports

Daily checklists

Final acceptance test and operational test procedure

SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

As-built drawings.

Special warranties.

Posted operating instructions.

Training plan.

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Government approval is required for extensions of design, critical

materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The COR's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer or the COR and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.6 GENERAL

The Contractor shall provide all submittals for this project in both paper and electronic formats. The electronic formats are as described below, or as directed by the Contracting Officer. Information in electronic format shall be submitted on CD-ROM at the time of the final submittal for items requiring government approval, or at the time of the submittal for items provided for information only. Four copies of each CD-ROM shall be provided. Unless otherwise specified in the specific description of a submittal or directed by the Contracting Officer, the electronic formats shall be as follows:

SD-01 Preconstruction Submittals shall be in Adobe .PDF format;
SD-02 Shop Drawings shall be in either MicroStation .DGN format or in Adobe .PDF format, as directed by the Contracting Officer;
SD-03 Product Data shall be in Adobe .PDF format;
SD-06 Test Reports shall be in .PDF format and, for data tables, also in Microsoft Excel
SD-07 Certificates shall be in Adobe .PDF format; and
SD-11 Closeout Submittals shall be in Adobe .PDF format and drawings

shall also be in MicroStation .DGN format.

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations. Unless otherwise indicated in the Specification describing the specific requirements for a submittal, seven paper copies and four CD-ROM electronic copies of each submittal shall be sent to the following address:

US Army Corps of Engineers, Calumet Area Office, 906 Griffith Boulevard, Griffith, IN 46319.

1.7 SUBMITTAL REGISTER

At the end of this section is a submittal register showing items for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall maintain a submittal register for the project using the QCS/RMS software system.

1.8 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

1.9 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. The QCS/RMS software package will print these forms. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

1.10 DEVIATIONS

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.11 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.12 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Two paper copies each submittal will be returned to the Contractor. All other copies will be retained by the Contracting Officer.

1.13 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.14 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.
W912P6-04-C-0006

TITLE AND LOCATION
IHC Obstruction Removal

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01100	SD-01 Preconstruction Submittals															
			Construction Schedule	1.20	G CS													
			Drug Free Workplace															
			Pre-Construction Survey		G DC													
			SD-02 Shop Drawings															
			Coordination with Others	1.12	G TSC													
			SD-11 Closeout Submittals															
			As-Built Drawings	1.5	G TSC													
			Construction Documentation	1.21	G HE													
			Report															
		01355	SD-01 Preconstruction Submittals															
			Environmental Protection Plan	1.7	G HE													
			SD-06 Test Reports															
			Air Monitoring Summary		G HE													
		01451	SD-01 Preconstruction Submittals															
			Quality Control Plan	3.2	G CC													
		01500	SD-01 Preconstruction Submittals															
			Site Plan		G DC													
		01525	SD-01 Preconstruction Submittals															
			Accident Prevention Plan	1.8	G SO	CS												
			Spill and Discharge Control Plan	1.9	G CS	HE												
			Decontamination Plan	1.10	G CS	SO												
			Activity Hazard Analysis	1.11	G SO	CS												
			Crane Critical Lift Plan	1.8.1	G CS													
			Crane Work Plan	1.8.1	G CS													

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		01525	Proof of Qualification for Crane		G CS													
			Operators															
			SD-06 Test Reports															
			Accident Reports	1.15.1														
			Monthly Exposure Reports	1.15.3														
			Regulatory Citations and	1.15.4														
			Violations															
			Crane Reports	1.15.5														
			SD-07 Certificates															
			Confined Space Entry Permit	1.12														
			Certificate of Compliance (Crane)															
		02115	SD-01 Preconstruction Submittals															
			Piping removal and disposal plan	1.6	G CS													
			Spill and discharge control plan		G HE													
			SD-06 Test Reports															
			Laboratory testing reports		G HE													
			SD-07 Certificates															
			Qualifications		G													
			SD-11 Closeout Submittals															
			Inspection permits, and other		G TCS													
			permits															
			pipes removed and disposed of	3.3	G TCS													
			Starting and ending dates of	3.3	G TCS													
			reporting period															
			Closure report	3.3	G TCS													
		02216	SD-01 Preconstruction Submittals															

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		02216	Turbidity Curtain Work Plan		GCC &													
			SD-03 Product Data															
			Manufacturer's certified material															
			property data sheets															
			Manufacturer's quality control															
			manual															
			Manufacturer's certified quality															
			control test results															
			Warranty															
			SD-04 Samples															
			Geotextile fabric, chain, cable,															
			and float material samples															
			SD-06 Test Reports															
			Friction Test Results															
		02220	SD-01 Preconstruction Submittals															
			Work Plan		G CS													
			Pre-Construction Survey	3.1	G CS													
			Demolition plan	1.8	G CS													
			SD-07 Certificates															
			Notification of Demolition		G CS													
			SD-11 Closeout Submittals															
			Receipts															
		02231	SD-03 Product Data															
			Borrow Area Identification		G DG													
			Statement															

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		02231	SD-09 Manufacturer's Field															
			Reports															
			Sampling Plan for Earth Fill		G	HE												
			Borrow Sites															
			Analytical Test Results for Earth		G	HE												
			Fill Borrow Sites															
			Final Report for Earth Fill Borrow		G	HE												
			Sites															
		02250	SD-02 Shop Drawings															
			Detail Drawings	2.2.1	G	LRP												
			SD-03 Product Data															
			Work Plan	1.3	G	LRP												
		02325	SD-01 Preconstruction Submittals															
			Work Plan		G	(CC												
			SD-02 Shop Drawings															
			Bucket		G	(CC												
			SD-03 Product Data															
			Equipment		G	(CC												
			Roll Off Box or Storage Facility		G	(CC												
			(Barge)															
			Trucks for Hauling Roll Off Boxes		G	(CC												
		02464	SD-03 Product Data															
			Pile Driving Equipment	3.1.1	G	CS												
			SD-06 Test Reports															
			Materials Tests	2.3.1	G	LRP												
		05055	SD-03 Product Data															

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		05055	Welding of Structural Steel	2.1.2.1	G	CS												
			SD-06 Test Reports															
			Tests, Inspections, and	2.2	G	CS												
			Verifications															
			SD-07 Certificates															
			Qualification of Welders and	1.4	G	CS												
			Welding Operators															
		05502	SD-03 Product Data															
			Miscellaneous Metals and	2.1	G	LRP												
			Standard Metal Articles															
			SD-06 Test Reports															
			Miscellaneous Metals and	2.1	G	LRP												
			Standard Metal Articles															

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR FIO ☐ GOV'T ☐ APPROVAL

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* b.	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See Instruction no. 8) c.	NO. OF COPIES d.	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. e.	DRAWING SHEET NO. f.	FOR CONTRACTOR USE CODE g.	VARIATION (See instruction no. 6) h.	FOR CE USE CODE i.

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

Instructions

1. Section I will be initiated by the contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for “Transmittal No.”. This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; in resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The “Item No.” will be the same “Item No.” as indicated on ENG FORM 4288-R for each entry on this form.

5. Separate transmittal form will be used for submittals under separate section of the specifications.

6. a check shall be placed in the “Variation” column when a submittal is not in accordance with the plans and specifications—also, a written statement to that effect shall be included in the space provided for “Remarks.

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer’s Certificate of Compliance is transmitted, indicate “Sample” or “Certificate” in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I columni to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g. to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A – Approved as submitted.

B – Approved, except as noted on drawings.

C – Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D – Will be returned by separate correspondence.

E – Disapproved (See attached).

F – Receipt acknowledged.

FX – Receipt acknowledged, does not comply as noted with contract requirements.

G – Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG form 4025-R)

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SECTION 01355

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-- End of Section Table of Contents --

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
49 CFR 171 - 178	Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

STATE OF INDIANA

327 IAC 15-5-7	General Requirements for Storm Water Quality Control
327 IAC 2-6-1	Spill Prevention and Spill Response Requirements
326 IAC 6-1-11.1	Lake County Fugitive Particulate Matter Control Requirements

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Land Application for Discharge Water

The term "Land Application" for discharge water implies that the Contractor shall discharge water at a rate which allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" shall occur. Land Application shall be in compliance with all applicable Federal, State, and local laws and regulations.

1.2.5 Surface Discharge

The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers,creeks, and/or "waters of the United States" and would require a permit to discharge water from the governing agency. All projects with land disturbances greater than or equal to one acre in total area must have a National Pollution Discharge Elimination System (NPDES)Construction Site Activity Storm Water Permit, issued by the Indiana Department of Environmental Management. All projects with discharge to waters of the United States must have a Section 401 Water Quality Certification issued by the Indiana Department of Environmental Management.

1.2.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328, are considered waters of the United States. The Contractor shall comply with all provisions of the (Clean Water Act)

Section 401 Water Quality Certification for this project.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

Assurance of compliance with this section by Subcontractors will be the responsibility of the Contractor. The Contractor shall also be responsible for insuring that haulers follow the approved route when hauling dredged sediment.

1.5 PAYMENT

Air quality monitoring requirements included in Section 3.4, will be paid for the Construction Emissions Air Monitoring bid item, with all other work in this section incidental to the contract. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES.

SD-01 Preconstruction Submittals

Environmental Protection Plan;G,HE

The environmental protection plan. The requirements for the plan are given in paragraph 1.7.

SD-06 Test Reports

Air Monitoring Summary;G,HE

The air monitoring summary. The requirements for the summary are given in paragraph 3.4.5.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction site activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval. The purpose of the Environmental Protection Plan

is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Discussion of topics or issues which are not identified in this section, but which the Contractor considers necessary, is not a requirement, but rather is an opportunity for the Contractor to improve the final project and/or environmental safety of the site through the use of his experience/expertise. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan, including any reporting requirements; and methods for administration of the Contractor's Environmental Protection Plan. The Environmental Protection Plan shall be current and maintained onsite by the Contractor. The Environmental Protection Plan shall include a Construction Plan. It is the responsibility of the Contractor to have the Construction Plan reviewed and approved by the local county Soil and Water Conservation District office, in the county where the construction activity will take place or to another appropriate state, county, or local reviewing authority, prior to submitting the Environmental Protection Plan to the Government. The Contractor shall contact IDEM's Rule 5 Coordinator at (317) 233-1864 or jdavis@dem.state.in.us to find out who will be the reviewing authority. The reviewing authority can make recommendations and request amendments to the Construction Plan. The local county Soil and Water Conservation District office has 28 calendar days to review the Construction Plan. If after 28 calendar days the local county Soil and Water Conservation District has not provided written approval, assent to the Construction Plan is assumed. The Contractor shall provide written approval from the local county Soil and Water Conservation District, if provided, in the Environmental Protection Plan. The Government will review the Environmental Protection Plan, including the Construction Plan, and then will submit the Notice of Intent (NOI) to the Indiana Department of Environmental Management after the plan has been approved. No construction will take place before the submission of the NOI. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. For more information on the National Pollutant Discharge Elimination System (NPDES) General Permit Rule for Storm Water Discharges Associated with Construction Activity you can go to the following website:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule5defs.html#noi.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The Environmental Protection Plan shall include, but shall not be limited to, the following:

a. A list of Federal, State and local laws, regulations, and permits concerning environmental protection, pollution control and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations and permits. A list of personnel who will implement and/or oversee environmental protection shall also be included.

b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.

c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.

d. Description of the Contractor's environmental protection personnel training program, including training for subcontractors.

e. A Construction Plan, which includes erosion and sediment controls. This Construction Plan must be approved by the local Soil and Water Conservation District prior to the submission of the plan to the Government. The contents of the Construction Plan shall include, but are not limited to:

1. Project narrative and supporting documents, including the following information:

A. An index indicating the location, in the construction plans, of all information required in the Construction Plan.

B. Description of the nature and purpose of the project.

C. Legal description of the project site. The description should be to the nearest quarter section, township, and range, and include the civil township.

D. Soil properties, characteristics, limitations, and hazards associated with the project site and the measures that will be integrated into the project to overcome or minimize adverse soil conditions.

E. General construction sequence of how the project site will be built, including phases of construction.

F. Hydrologic Unit Code (14 Digit) available from the United States Geological Survey (USGS).

G. A reduced plat or project site map showing the lot numbers, lot boundaries, and road layout and names. The reduced map must be legible and submitted on a sheet or sheets no larger than eleven (11) inches by seventeen (17) inches for all phases or sections of the project site.

H. Identification of any other state or federal water quality permits that are required for construction activities associated with the owners project site.

2. Vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads, such as a USGS topographic quadrangle map or county or municipal road map.

3. An existing project site layout that must include the following information:

A. Location and name of all wetlands, lakes, and water courses on or adjacent to the project site.

B. Location of all existing structures on the project site.

C. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exists.

D. Soil map of the predominant soil types, as determined by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Soil Survey, or an equivalent publication, or as determined by a soil scientist. A soil legend must be included with the soil map.

E. Identification and delineation of vegetative cover, such as grass, weeds, brush, and trees, on the project site.

F. Land use of all adjacent properties.

G. Existing topography at a contour interval appropriate to indicate drainage patterns.

4. Final project site layout, including the following information:

A. Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas.

B. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exist.

C. Proposed final topography at a contour interval appropriate to indicate drainage patterns.

5. A grading plan, including the following information:

A. Delineation of all proposed land disturbing activities, including off-site activities that will provide services to the project site.

B. Location of all soil stockpiles and borrow areas.

C. Information regarding any off-site borrow, stockpile, or disposal areas that are associated with a project site and under the control of the project site owner.

D. Existing and proposed topographic information.

6. A drainage plan, including the following information:

A. An estimate of the peak discharge, based on the ten (10) year storm event, of the project site for both preconstruction and postconstruction conditions.

B. Location, size, and dimensions of all storm water drainage systems, such as culverts, storm sewers, and conveyance channels.

C. Locations where storm water may be directly discharged into ground water, such as abandoned wells or sinkholes. Please note if none exist.

D. Locations of specific points where storm water discharge will leave the project site.

E. Name of all receiving waters. If the discharge is to a separate municipal storm sewer, identify the name of the municipal operator and the ultimate receiving water.

F. Location, size, and dimensions of features, such as permanent retention or detention facilities, including existing or manmade wetlands, used for the purpose of storm water management.

7. A storm water pollution prevention plan associated with

construction activities. The plan must be designed to, at least, meet the general requirements for storm water quality control described in Indiana's regulation, 327 IAC 15-5-7 and must include the following:

A. Location, dimensions, detailed specifications, and construction details of all temporary and permanent storm water quality measures.

B. Temporary stabilization plans and sequence of implementation.

C. Permanent stabilization plans and sequence of implementation.

D. Temporary and permanent stabilization plans shall include the following:

(i) Specifications and application rates for soil amendments and seed mixtures.

(ii) The type and application rate for anchored mulch.

E. Construction sequence describing the relationship between implementation of storm water quality measures and stages of construction activities.

F. Self-monitoring program including plan and procedures.

G. A description of potential pollutant sources associated with the construction activities, which may reasonable be expected to add a significant amount of pollutants to storm water discharges.

H. Material handling and storage associated with construction activity shall meet the spill prevention and spill response requirements in Indiana's regulation, 327 IAC 2-6-1.

8. The post construction storm water pollution prevention plan. The plan must include the following information:

A. A description of potential pollutant sources from the proposed land use, which may reasonable be expected to add a significant amount of pollutants to storm water discharges.

B. Location, dimensions, detailed specifications, and construction details of all post construction storm water quality measures.

C. A description of measures that will be installed to control pollutants in storm water discharges that will occur after construction activities have been completed. Such practices include infiltration of run-off, flow reduction by use of open vegetated swales and natural depressions, buffer strip and riparian zone preservation, filter strip creation, minimization of land disturbance and surface imperviousness, maximization of open space, and storm water retention and detention ponds.

D. A sequence describing when each post construction storm water quality measure will be installed.

E. Storm water quality measures that will remove or minimize pollutants from storm water run-off.

F. Storm water quality measures that will be implemented to prevent or minimize adverse impacts to stream and riparian habitat.

G. A narrative description of the maintenance guidelines for all post construction storm water quality measures to facilitate their proper long-term function. This narrative description shall be made available to future parties who will assume responsibility for the operation and maintenance of the post construction storm water quality measures.

f. A Work Site and Access Roads Traffic Control Plan, and a plan for restricting unauthorized access in the work area. The Traffic Control Plan would include measures to reduce erosion by construction traffic, especially during wet weather. The plan shall also include measures to prevent any mud transported onto paved public roads by vehicles or runoff. Vehicle decontamination shall be a requirement prior to any vehicle leaving the site.

g. Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.

h. The Spill Control Plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local fire department or emergency response agency in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.

2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and any subcontractors, and methods of accomplishing the training.

4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

i. A Non-hazardous Solid Waste Disposal Plan, identifying methods and locations for solid waste disposal, excluding clearing and demolition debris. Specific information shall be provided on the proposed disposal of solid waste. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of waste. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected

transporters and disposal facilities have the necessary permits and licenses to operate. Evidence of the disposal facility's acceptance of the waste shall be attached to this plan during the construction. The Contractor shall attach a copy of each of the Non-hazardous Solid Waste Diversion Reports to the disposal plan. The report shall be submitted on the first working day after the first quarter that non-hazardous solid waste has been disposed and/or diverted and shall be for the previous quarter (e.g. the first working day of January, April, July, and October). The report shall indicate the total amount of waste generated and total amount of waste diverted in cubic yards or tons along with the percent that was diverted. Sanitary waste and solid waste shall not be mixed with, transported with, or disposed of with the dredged material. See SECTION 01100 GENERAL PROVISIONS for Borrow/Disposal Site information. The dredged material shall be handled and disposed of as specified in SECTION 02325 DREDGING and SECTION 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES.

j. A Recycling and Solid Waste Minimization Plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to participate in Federal, State, Regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.

k. An Air Quality Monitoring Plan, detailing provisions to assure that volatile emissions, dust, debris, materials, trash, etc., do not migrate off-site and pose a hazard to the surrounding community. The Air Quality Monitoring Plan shall outline materials, methods, and procedures for the monitoring of air quality at the project site. The Air Quality Monitoring Plan shall also include a Quality Assurance Plan outlining quality assurance and quality control methods for the sampling and analytical procedures. Specific requirements for both the Air Quality Monitoring Plan and the Quality Assurance Plan are outlined in Paragraph 3.4, Air Resources.

l. A Contaminant Prevention Plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.

m. A Wastewater Management Plan that identifies the methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, decontamination water, hydrostatic test water, water used in flushing of lines, and entrained water that is associated with any spillage occurring during the transfer of dredged materials from the canal into roll-off boxes.

n. A historical, archaeological, cultural resources, biological resources, and wetlands plan, that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: and/or identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands

not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

o. Environmental monitoring plans for the job site, including land, water, odor and noise monitoring.

p. A Dredged Material Disposal Plan, identifying methods and location for dredged material disposal. Specific information shall be provided on the proposed disposal of dredged material. The plan shall include schedules for the disposal and identify any subcontractors responsible for the transportation and disposal of the dredged material. A treatment, storage and disposal facility (TSDF) is the only acceptable disposal option. The Contractor shall verify that the selected transporters and disposal facility has the necessary permits and licenses to operate. Evidence of the TSDF's acceptance of the dredged material and/or additional information required for the dredged material disposal shall be attached to this plan during the construction.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements FAR Clause 52.236-9 "PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS". Prior to the start of any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of FAR Clause 52.236-9, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications, which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.10 NOTIFICATION

The Contractor is responsible for notifying the Contracting Officer of any noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan and proposed corrective actions. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This paragraph supplements the Contractor's responsibility under FAR Clause 52.236-7 "PERMITS AND RESPONSIBILITIES" to the extent that the Government will obtain the Regional General Permit, which the Indiana Department of Environmental Management (IDEM) has issued Section 401 Water Quality Certification, and Floodway Permit. The Government will obtain these permits as an agent, for the East Chicago Waterway Management District. The Contractor shall comply with all requirements under the terms and conditions set out in the Regional General Permit, 401 Water Quality Certification, Clean Water Act and Floodway Permit, Flood Control Act. Contract award is contingent on the Corps of Engineers obtaining the aforementioned Regional General Permit, with 401 Water Quality Certification, from IDEM and floodway permit from the Indiana Department of Natural Resources (IDNR). Copies of all permits obtained by the Corps of Engineers will be provided to the Contractor at the preconstruction meeting.

The Contractor shall be responsible for complying with all environmental permits and commitments required by Federal, State, Regional, and local environmental laws and regulations.

3.2 LAND RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor. Section 1.8 includes information on protection of features that shall be identified in a pre-construction site survey.

3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.2.3 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs). BMPs may include, but not be limited to, vegetation cover, stream bank stabilization, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, inlet and outfall protection, diversion channels, and sedimentation basins. The Contractor's best management practices shall also be in accordance with the State of Indiana National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention requirements. Any temporary measures shall be removed after the area has been stabilized. All construction areas shall be seeded as soon as possible following construction.

3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved by the Contracting Officer. Borrow areas and spoil areas shall be managed to minimize erosion and to prevent sediment from entering nearby waters or leaving the site as runoff. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from erosion and sedimentation.

3.3 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management and control to avoid pollution of surface waters. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities, which are included in this contract.

3.3.1 Shoring System Installation and Removal

Construction operations for installing and removing the shoring system shall be controlled at all times to maintain compliance with existing State water quality standards and designated uses of the surface water body. The Contractor shall comply with the State of Indiana water quality standards and anti-degradation provisions, the Clean Water Act Section 404, and the Regional General Permit, Section 401 Water Quality Certification, for this project.

3.4 AIR RESOURCES

Equipment operation, activities, and processes performed by the Contractor in accomplishing the specified construction shall comply with all applicable Federal, State, and local air quality laws and regulations. To control off-site air quality impacts during the on-site construction activities, the Contractor shall conduct an obstruction removal air monitoring program, as described in the following paragraphs. The Contractor must submit for Government approval an Air Quality Monitoring Plan as part of the Environmental Protection Plan. The Air Quality Monitoring Plan shall outline the equipment, sampling plan, analytical methods, and quality assurance and control procedures utilized for the obstruction removal air monitoring program, as outlined in the paragraphs below.

The Air Quality Monitoring Plan shall also include anticipated emission control measures for volatile or particulate emissions (as defined below), and provide details of a corrective action plan to control releases. The Contracting Officer must approve the Air Quality Monitoring Plan before work can begin on the site.

3.4.1 Obstruction Removal Air Monitoring Requirements

The Contractor will conduct air monitoring to confirm that obstruction removal construction activities do not adversely impact ambient air quality in the project vicinity. The requirements for this monitoring program, hereby referred to as "obstruction removal air monitoring", are distinct from the personal exposure monitoring required by OSHA for the purpose of ensuring site worker health and safety.

Obstruction removal air monitoring shall consist of two distinct types of atmospheric monitoring:

a. Volatile emissions air monitoring
b. Particulate emissions air monitoring

The volatile emissions monitoring requirements will be specific to activities occurring on-site, and are described in full in Paragraph 3.4.2 and all its sub-paragraphs. Particulate emissions monitoring will be required throughout the duration of the construction contract, pursuant to Title 326 of the State of Indiana Administrative Code. The requirements for particulate emissions monitoring are outlined in Paragraph 3.4.3 and all of its sub-paragraphs.

3.4.2 Volatile Emissions Air Monitoring

The primary goal of the volatile emissions air monitoring is to demonstrate that obstruction removal activities do not adversely impact the air quality

of the surrounding community. To achieve this goal, the Contractor will implement dedicated atmospheric monitoring at the project site for specific contaminants of concern (COCs), in combination with observance of notification level guidelines. The COCs and notification level concentrations are outlined in Attachment 01355-1, which is included at the conclusion of this section.

The notification levels specified in Attachment 01355-1 are outlined toward the general surveillance of ambient air quality conditions for the surrounding community. An exceedence of notification levels does not necessarily indicate a health or safety hazard to the surrounding community. To this effect, these notification levels are not intended to replace, but rather to supplement, other Contractor air monitoring requirements, such as those for site worker health and safety. In this capacity, the Contractor shall be responsible for compliance with Federal, State, and local regulatory requirements governing the protection of site worker health and safety, as outlined in SECTION 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS.

3.4.2.1 Monitoring Methods

Volatile emissions air monitoring shall take place only during those obstruction removal activities that involve the handling or exposure of sediments from within the Lake George Branch of the Indiana Harbor Canal. Specifically, the implementation of volatile emissions air monitoring will be indicated by any of the conditions listed below:

a. Dredging/excavating sediments from within the Canal
b. Offloading/rehandling sediments obtained from within the Canal
c. Any temporary storage of sediments on site

As part of the Air Quality Monitoring Plan, the Contractor shall list specific activities, including those listed above, in which the potential exists to expose sediment to the atmosphere.

The accurate quantification of COCs is fundamental toward the resolution of these analytes at the concentrations defined by the notification levels. For this reason, volatile emissions air monitoring shall include the use of:

a. high-volume air samplers for the combined measurement of polychlorinated biphenyls (PCBs; congener-specific) and polycyclic aromatic hydrocarbons (PAHs), and

b. low-volume passivated stainless steel canisters for the measurement of volatile organic compounds (VOCs).

The specific VOCs, PAHs, and PCB congeners which shall be analyzed and evaluated are listed in Attachment 01355-1.

3.4.2.2 Monitoring Schedule

Upon the initiation of any activity that requires volatile emissions monitoring, as described in Paragraph 3.4.2.1 or listed specifically by the Contractor in the Air Quality Monitoring Plan, the Contractor shall conduct volatile emissions monitoring. On each day for which volatile emissions sampling is to take place, at a minimum the contractor shall collect:

a. One (1) 24-hour high-volume sample for the purpose of PAH and PCB analysis for the identified COCs, and

b. One (1) 24-hour low-volume sample for the purpose of VOC analysis for the identified COCs.

3.4.2.3 Equipment Placement

The field instruments designed to measure airborne emissions must be sufficiently portable (for example, mounted on skids or a trailer) so that monitoring can take place at a location immediately adjacent to the obstruction removal project work areas. The volatile emissions monitoring equipment must be located as close as practicable to areas most likely to be impacted by air emissions due to sediment excavation/dredging activities, stockpiling of excavated sediment, or loading and unloading operations. Samples shall be obtained in areas such that engine exhaust from construction equipment has minimal impact the air samples collected. If possible, the Contractor shall place the volatile emissions air monitoring equipment in a generally downwind direction from that of any applicable ongoing obstruction removal activities. The Contractor is responsible for movement the air sampling apparatus to comply with the terms of this paragraph. Approximate locations of the monitoring apparatus shall be shown in the Air Quality Monitoring Plan. Placement of monitoring equipment in locations other that as outlined in the accepted Air Quality Monitoring Plan must be coordinated with the Contracting Officer.

3.4.2.4 Quality Assurance/Quality Control

The Air Quality Monitoring Plan submitted by the Contractor shall also include a Quality Assurance Plan, outlining quality assurance and quality control methods for the sampling and analytical procedures for volatile emissions.

The laboratory utilized by the contractor for sample extraction and analysis shall be certified by the U.S. Army Corps HTRW Center of Expertise, or explicitly approved by the Contracting Officer. A listing of validated laboratories can be obtained at the Contactor's request.

The Contractor shall pursue the expeditious evaluation of all air monitoring results. The turnaround time for laboratory analysis shall be no longer than seven (7) days for all preliminary data. The final, quality assured and validated data shall be available within an additional 21 days.

The "laboratory reporting limit" is defined as the concentration at which a laboratory can be accurately quantify a particular COC. The reporting limits for each of the chemical subclasses shall be no greater than those prescribed here:

a. VOCs = 1.0 ug m-3;
b. PAHs = 0.01 ug m-3; and
c. PCBs = 0.00001 ug m-3.

Common quality assurance procedures including, but not limited to, the use of field blanks, laboratory blanks, and chemical surrogate compounds to quantify sample recovery, appropriate sample preservation/refrigeration methods, and sample holding times shall be employed during obstruction removal air monitoring. All air monitoring equipment shall be calibrated at a minimum of once every seven (7) days. All quality assurance and quality control measures, including but, not limited to those discussed in this paragraph, shall be specified in the Quality Assurance Plan submitted by the Contractor, as part of the Air Quality Monitoring Plan.

The Contractor shall be prepared to discuss data quality objectives and quality control measures at a Coordination Meeting prior to start of construction. The requirements for this meeting are outlined in Paragraph 3.3 of SECTION 01451 CONTRACTOR QUALITY CONTROL.

3.4.2.5 Conditions for Notification

To comply with the notification levels outlined in Attachment 01355-1, the Contractor shall ensure that volatile emissions air monitoring takes place upon the initiation of any activity as described in Paragraph 3.4.2.1 or listed specifically by the Contractor in the Air Quality Monitoring Plan.

For each period of five (5) days during which volatile emissions air monitoring is ongoing, (either consecutive or sum of alternate days), the Contractor must check for compliance with notification levels. To this effect, the Contractor shall evaluate the preliminary laboratory results, as soon as they are available, for the five (5) most recent days of volatile emissions sampling. Evaluation of action level exceedance is defined by:

If the average concentration of five (5) consecutive daily samples of any one particular COC exceeds its respective concentration identified in Attachment 01355-1, the Contractor is obligated to:

i. Notify the Contracting officer of the exceedence;
ii. Advise which COCs are in exceedence of the notification level; and
iii. Implement Control Measures as outlined in Paragraph 3.4.2.6.

The average concentration is determined by the mathematical mean of the individual 24-hour concentration results over five (5) consecutive days.

As noted in Attachment 01355-1, each contaminant of concern has a different concentration at which the notification level is attained. However, the procedures for the sampling, evaluation, and implementation of the notification levels are the same.

3.4.2.6 Control Measures for Air Emissions

If, at any time during volatile emissions air monitoring, data indicates that any notification levels have been exceeded, the Contractor shall perform control measures and implement appropriate corrective action to reduce volatile emissions. These controls can include, but are not limited to, the following measures:

a. covering/spray foam application of stockpiles or spoil materials;
b. minimizing time of sediment exposure;
c. minimizing amount of sediment rehandling; and
d. covering of roll-off boxes awaiting transportation.

As part of the Air Quality Monitoring Plan, shall outline possible measures and work practices, in addition to those listed above, that may be implemented to reduce volatile emissions.

3.4.3 Particulate Emissions Air Monitoring

The Contractor will conduct particulate emissions monitoring to confirm that obstruction removal activities do not adversely impact the ambient air

quality in the project vicinity. The Contractor must comply with action levels listed within the state of Indiana's fugitive dust regulation, 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements). Particulate emissions include dust particles, aerosols, and other particulate byproducts from construction activities, including diesel emissions. The following particulate matter emission limitations shall apply to all Contractor activities:

a. The average instantaneous opacity of fugitive particulate emissions from unpaved roads and parking lots shall not exceed ten percent (10%).

b. The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

c. The opacity of fugitive particulate emissions from storage piles and exposed areas shall not exceed ten percent (10%) on a six (6) minute average.

d. For material transportation activities:

i. There shall be zero percent (0%) frequency of visible emission observations of material during the inplant transportation of material by truck or rail at any time.

ii. The opacity of fugitive particulate emissions from the inplant transportation of material by front-end loaders and skip hoists shall not exceed ten percent (10%) by averaging three (3) opacity readings taken at five (5) second intervals.

e. Any facility not specified in the above rules shall meet a twenty percent (20%), three (3) minute average opacity standard.

3.4.3.1 Particulate Emissions Monitoring Methods

The Air Quality Monitoring Plan shall detail the Contractor's methods for monitoring particulate emissions. The Contractor shall indicate specific instrumented, visual, or otherwise applicable techniques to be employed to verify compliance with the emission limitations listed in Paragraph 3.4.3. The Contractor shall provide an outline of necessary equipment, materials, personnel, or ancillary items necessary for the successful implementation of particulate emissions monitoring. The Contractor shall also indicate the frequency and duration of monitoring efforts to ensure compliance with the rules listed in Paragraph 3.4.3. Monitoring for fugitive dust emissions shall be performed every day while obstruction removal construction activities are ongoing at the site.

3.4.3.2 Particulate Emissions Control Measures

The Air Quality Monitoring Plan shall specify measures that will be implemented to prevent and control fugitive particulate emissions. If State of Indiana standards for particulate emissions are exceeded, or if there is a visible dust plume migrating away from the work zone(s), the Contractor shall take steps to control the dust level in the work area, and implement corrective action to reduce future particulate emissions.

The Contractor shall be responsible for controlling particulate emissions at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall implement control measures at excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites,

spoil areas, borrow areas, and other work areas. Control measures may include, but are not limited to:

a. covering of trucks;
b. covering of stockpiles; and
c. water/spray foam application.

3.4.3.3 Particulate Emissions Compliance Documentation

The Contractor shall keep the following documentation to show compliance with each of his control measures or control practices:

a. A map or diagram showing the location of all emission sources controlled, including the location, identification, length, and width of roadways.

b. For each application of water or chemical solution to roadways, stockpiles, or construction areas, the following shall be recorded:

i. The name of the agent;
ii. The location of the application;
iii. The application rate;
iv. The total quantity of agent used;
v. If diluted, the percent of concentration used; and
vi. The material data safety sheets (MSDS) for each chemical.

3.4.4 Monitoring Equipment

The Contractor is responsible for supplying all monitoring equipment, materials, and labor for air monitoring activities, including samplers, sampling media, and power for sampling equipment. The Contractor shall provide an outline, as part of the Air Quality Monitoring Plan, of necessary equipment, materials, and ancillary items necessary for the successful implementation of the obstruction removal air monitoring program.

When applicable, real-time monitoring equipment shall be equipped with data-logger or other equivalent data recording system capable of continuous data recording. The coordinates of all air monitoring locations, including high-volume, low-volume, and real-time measurements, shall be recorded using a Global Positioning System (GPS) device.

Diesel generators shall not be used for powering monitoring equipment if the diesel emissions could contaminate air samples being obtained by the obstruction removal air monitoring, or other air sampling that may be occurring by other contractors. The Contractor is responsible for insuring that all diesel generators and ancillary equipment do not interfere with air monitoring.

3.4.5 Data Management

At a minimum, the Contractor shall record, and make available for inspection by the Contracting Officer, information to include:

a. Date, time, GPS location*, weather conditions** (temperature, cloud cover, precipitation, and approximate wind speed and direction), and brief description of type of ongoing construction activity at the beginning and end of each high-volume and low-volume sample.

b. Date, time, GPS location*, weather conditions** (temperature,

cloud cover, precipitation, and approximate wind speed and direction) and meter reading for all real-time monitoring events.

c. Name of monitoring equipment operator for each monitoring event.

d. Documentation of any exceedances of action levels and associated corrective actions.

e. Records related to the calibration and maintenance of all monitoring equipment.

* GPS location shall be within a two (2) meter resolution
** Weather conditions can be recorded utilizing hand-held instrumentation or transportable automated meteorological station (TAMS) unit.

The Contractor shall submit a weekly Air Monitoring Summary, along with analytical results, that includes requirements listed in the paragraph above (a-e), in an electronic format.

3.4.6 Odors

Odors shall be controlled at all times for all obstruction removal activities, processing and preparation of materials. The odors shall not cause a health hazard and shall be in compliance with State of Indiana regulations and/or local ordinances.

3.4.7 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall use methods and devices to control noise emitted by equipment. Noise levels shall in all cases be in compliance with applicable local codes and regulations.

3.4.8 Burning

Burning will not be allowed on the project site unless specified in other sections of the specifications or authorized in writing by the Contracting Officer. The specific time, location, and manner of burning shall be subject to approval.

3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.5.1 Solid Wastes

Solid wastes (excluding clearing and demolition debris) shall be placed in containers which are emptied on a regular schedule, and the Contractor shall specify the schedule in the environmental protection plan. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected

transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas. Solid waste shall not be mixed with the dredged material that is taken offsite for disposal.

3.5.2 Dredged Material Disposal

Sediment dredged for this construction project shall be placed into roll-off boxes. Use of a temporary storage facility, such as a barge, may be necessary prior to the sediment being loaded into roll-off boxes. Once these roll-off boxes are filled they must be completely enclosed and watertight so that no sediment or entrained water can escape during transportation. The time that roll-off boxes and temporary storage facilities are partially filled and open on-site must be kept to a minimum. Once filled, these roll-off boxes shall be transported directly to a Treatment, Storage and Disposal Facility (TSDF). The Contractor may have to do additional sediment sampling and characterization prior to transport to verify that the sediment can be properly disposed and that the TSDF selected assents to the acceptance of the material prior to transport. The Corps has recently done some sediment characterization for disposal alternatives and this information is included in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS. Complete laboratory analytical results are available upon request. Procedures that the Contractor shall use in accomplishing the requirements of this paragraph shall be detailed in the Dredging, Disposal, and Loading Plan submittal required by SECTION 02325 DREDGING. Additional information relating to disposal of dredged materials can be found in SECTION 02325 DREDGING.

3.5.3 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

3.5.4 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

Hazardous wastes are defined in 40 CFR 261, or are as defined by applicable State and local regulations. Hazardous materials are defined in 49 CFR 171 - 178. The Contractor shall, at a minimum, manage and store hazardous waste in compliance with 40 CFR 262. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. The Contractor shall segregate hazardous waste from other materials and wastes, shall protect it from the weather by placing it in a safe covered location, and shall take precautionary measures such as berming or other appropriate measures against accidental spillage. The Contractor shall be responsible for storage, describing, packaging, labeling, marking, and placarding of hazardous waste and hazardous material in accordance with 49 CFR 171 - 178, State, and local laws and regulations. The Contractor shall transport Contractor generated hazardous waste off Government property within 60 days in accordance with the Environmental Protection Agency and the Department of Transportation laws and regulations. The Contractor shall dispose of hazardous waste in compliance

with Federal, State and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility. The disposition of Contractor generated hazardous waste and excess hazardous materials are the Contractor's responsibility.

3.5.5 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be accordance with all Federal, State, and local laws and regulations, and must have the approval of the Contracting Officer.

3.5.6 Waste Water

Disposal of waste water shall be as specified below.

a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, waste water generated by the decontamination of vehicles, etc. and entrained water that is associated with any spillage occurring during the transfer of dredged materials from the canal into roll-off boxes, shall not be allowed to enter water ways. The Contractor shall dispose of the construction related waste water off-Government property in accordance with all Federal, State, Regional and Local laws and regulations.

b. For discharge of ground water, the Contractor shall obtain a State or Federal permit specific for pumping and discharging ground water prior to surface discharging. All surface discharge shall be done in accordance with the requirements of the NPDES Construction Site Activity Storm Water Permit. Land application shall be in accordance with all Federal, State, Regional, and/or Local laws and regulations for pumping and land applying ground water.

3.6 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

3.7 NON-HAZARDOUS SOLID WASTE DIVERSION REPORT

The Contractor shall maintain an inventory of non-hazardous solid waste diversion and disposal. The Contractor shall submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that non-hazardous solid waste has been generated. The following shall be included in the report:

a. Debris Disposed = _____ in cubic yards or tons, as appropriate.

b. Debris Recycled = _____ in cubic yards or tons, as appropriate.

c. Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount) = _____ in cubic yards or tons, as appropriate.

3.8 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Any identified existing historical, archaeological, and cultural resources within the Contractor's work area are shown on the drawings. The Contractor shall protect these resources and shall be responsible for their preservation during the life of the Contract. If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.9 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.10 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds.

3.11 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.12 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel and subcontractor personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of

devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their habitat that are known to be in the area. The Contractor shall be responsible for insuring that all Subcontractors are trained in environmental protection. The Contractor shall include a description of the training content and timing in the environmental protection plan.

3.13 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, decontamination facilities, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

3.14 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily reports any problems in complying with laws, regulations, ordinances, and corrective action taken in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

-- End of Section --

Attachment 01355-1

Table 1: Summary of Obstruction Removal Air Monitoring

Contaminant and Collection Method	**Recommended Analytical Method[1]**	**Sample Turn-Around Time**	**Contaminant of Concern (COC)**	**COC Notification Level (ug m^{-3})**
Volatile (VOC) Monitoring Low-Volume Canister	EPA Method TO-15	Preliminary Data: 7 Days Validated Data: 28 Days	Benzene	40
			Toluene	3565
			Ethylbenzene	9065
			Xylenes	62510
Semi-volatile (PAH) Monitoring High-Volume Air Sampler	EPA Method **TO-13A** (*Modified*)	Preliminary Data: 7 Days Validated Data: 28 Days	Acenaphthene	1875
			Acenaphthylene	1875
			Anthracene	9376
			Benzo(a)anthracene	4
			Benzo(a)pyrene	0.4
			Benzo(b)fluoranthene	4
			Benzo(k)fluoranthene	35
			Chrysene	355
			Dibenz(a,h)anthracene	0.4
			Fluoranthene	1250
			Fluorene	1250
			Indeno(1,2,3-cd)pyrene	4
			Naphthalene	30
			Phenanthrene	9376
			Pyrene	938
Semi-volatile (PCB congeners) Monitoring High-Volume Air Sampler	EPA Method **TO-13A** (*Modified*)	Preliminary Data: 7 Days Validated Data: 28 Days	PCB 8	-
			PCB 15	-
			PCB 18	-
			PCB 28	-
			PCB 31	-
			PCB 77	-
			PCB 81	-
			PCB 105	-
			PCB 114	-
			PCB 118	-
			PCB 123	-
			PCB 126	-
			PCB 156	-
			PCB 157	-
			PCB 167	-
			PCB 169	-
			PCB 170	-
			PCB 180	-
			PCB 189	-
			Sum PCB Congeners	1
Real-time Particulate Monitoring	Field particulate monitoring unit	Immediate	Particulates and Aerosols	State of IN Regulation, Visible Dust

(1) Recommended method to utilize in order to attain desired analyte reporting limits

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SECTION 01420

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SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1819 L Street, NW, 6th Floor
Washington, DC 20036
Ph: 202-293-8020
Fax: 202-293-9287
Internet: www.ansi.org/

Acoustical Society of America
Standards and Publications Fulfillment Center
P. O. Box 1020
Sewickley, PA 15143-9998
Ph: 412-741-1979
Fax: 412-741-0609
Internet: http://asa.aip.org
General e-mail: asa@aip.org
Publications 3 e-mail: asapubs@abdintl.com
AOK 5/01
LOK 6/00

AMERICAN PETROLEUM INSTITUTE (API)
1220 L St., NW
Washington, DC 20005-4070
Ph: 202-682-8000
Fax: 202-682-8223
Internet: www.api.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9585
Fax: 610-832-9555
Internet: www.astm.org
AOK 5/01
LOK 3/01

AMERICAN WELDING SOCIETY (AWS)
550 N.W. LeJeune Road
Miami, FL 33126
Ph: 800-443-9353 - 305-443-9353
Fax: 305-443-7559
Internet: www.amweld.org
AOK 5/01
LOK 3/01

ASME INTERNATIONAL (ASME)
Three Park Avenue
New York, NY 10016-5990
Ph: 212-591-7722
Fax: 212-591-7674
Internet: www.asme.org
AOK 5/01
LOK 6/00

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
Ph: 617-770-3000
Fax: 617-770-0700
Internet: www.nfpa.org
AOK 5/01
LOK 8/00

U.S. ARMY CORPS OF ENGINEERS (USACE)

Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station
ATTN: Technical Report Distribution Section, Services Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: www.wes.army.mil/SL/MTC/handbook/handbook.htm

Order Other Documents from:
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2803 52nd Avenue
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Ph: 301-394-0081
Fax: 301-394-0084
Internet: www.usace.army.mil/publications
or www.hnd.usace.army.mil/techinfo/index.htm
AOK 5/01

LOK 6/00

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
700 Pennsylvania Avenue, N.W.
Washington, D.C. 20408
Phone: 800-234-8861
website: nara.gov

Order documents from:
Superintendent of Documents
U.S.Government Printing Office
732 North Capitol Street, NW
Washington, DC 20401
Mailstop: SDE
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
E-mail: gpoaccess@gpo.gov
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SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(1996) Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

1.2 MEASUREMENT AND PAYMENT

Separate or direct payment will not be made for providing and maintaining an effective quality control program, and all costs associated therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Quality Control Plan;G,CC

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than fifteen (15) days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first fifteen-(15) days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC plan shall include, as a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC system manager who shall report to the project manager or someone higher in the Contractor's organization. Project manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities. Copies of these letters will also be furnished to the Contracting Officer in the Quality Control Plan.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents. These procedures shall be in accordance with SECTION 01330, SUBMITTAL PROCEDURES.

e. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. The Contracting Officer will approve laboratory facilities in accordance with paragraph 3.7, TESTS.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. Different trades or disciplines could identify it, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer and other members of the USACE Chicago District, to discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, interrelationship of Contractor's Management and control with the Government's Quality Assurance and the Construction Documentation Report.

The Contractor shall also be prepared to discuss data quality objectives for the air monitoring associated with this contract. The Contractor who will be performing/overseeing the air monitoring, and at least one lab chemist/analyst from each of the Contractor's laboratories shall be present at this meeting.

Minutes of the meeting shall be prepared by the Contracting Officer and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 CQC System Manager

The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. This CQC System Manager shall be on the site at all times during construction and will be employed by the Contractor, except as noted in the following. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the system manager's absence. Period of absence may not exceed two (2) weeks at any one time, and not more than thirty (30) workdays during a calendar year without designating a new CQC manager. The requirements for the alternate will be the same as for the designated CQC manager.

3.4.2 CQC Organizational Staffing

The Contractor shall provide a CQC staff that shall be at the site of work at all times during progress, with complete authority to take any action necessary to ensure compliance with the contract.

3.4.2.1 CQC Staff

Following are the minimum requirements for the CQC staff. These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during construction. The actual strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the Contractor will add additional staff at no cost to the Government. This listing of minimum staff in no way relieves the Contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2.2 CQC System Manager

The CQC system manager shall be an experienced construction person with a minimum of three (3) years experience in related work. The CQC system manager shall be assigned as system manager and shall have no other duties in addition to quality control.

3.4.2.3 Supplemental Personnel

A staff shall be maintained under the direction of the CQC system manager to perform all QC activities. The staff must be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities. The QC plan will clearly state the duties and responsibilities of each staff member.

3.4.3 Organizational Changes

The Contractor shall obtain Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

3.4.4 Construction Quality Management for Contractors

If the contract award is in excess of 1 million dollars, the CQC system manager is required to have a current certificate of completion for the Corps of Engineers course, "Construction Quality Management for Contractors". If the CQC manager does not have a current training certificate, then he/she will be required to obtain the training within 60 days of the contract "Notice to Proceed". The training will take about 16 hours to complete. This course will be offered at the U.S. Army Corps of Engineers, Chicago District Office, 111 N. Canal Street, Suite 600, Chicago, Illinois. It is the Contractor's responsibility to arrange a time with the Construction/Operation Division for the training. Point of contract for arranging this training will be Leon Turner at 312-846-5494 or Dick Albert at 312-846-5490.

3.5 SUBMITTALS

Submittals shall be as specified in SECTION 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and will be keyed to the proposed construction sequence. The controls shall include at least three phases of control to be conducted by the CQC system manager for all definable features of work, as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work and shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract plans.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. A check to assure that provisions have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawing or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards

for that phase of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. The Government shall be notified at least forty-eight (48) hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC system manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall complete the attached Preparatory Phase Checklist. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of completed work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels if appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least twenty-four (24) hours in advance of conducting the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. The Contractor shall complete the attached Initial Phase Checklist. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases may be conducted on the same definable features of work as determined by the Contracting Officer if the quality of on-going work is unacceptable; or if there are changes in the applicable QC staff or in the on-site production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, will be recorded on the Quality Control report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing rock shall meet criteria detailed in ASTM D 3740.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a minimum charge of $2,500 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Contracting Officer, unless otherwise specified or directed.

3.8 COMPLETION INSPECTION

At the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC system manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph, DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC system manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.9 DOCUMENTATION

The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form and shall include factual evidence that required quality control activities and/or tests have been performed, including but not limited to the following:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed to date, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with

corrective action.

e. Material received with statement as to its acceptability and storage.

f. Identify submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. List instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

k. As-built contract drawings consisting of two (2) full size sets of contract drawings marked in red to depict all conditions differing from the original plans.

l. Shop drawings consisting of three (3) complete sets of prints as finally approved.

m. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within twenty-four (24) hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed unless no work was performed as a result of adverse weather. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

These records shall be recorded on the forms illustrated in Attachments 1 through 3, attached hereto.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor at the site of the work, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

DAILY CONSTRUCTION QUALITY CONTROL MANAGEMENT REPORTS

DATE_____ REPORT NO._____

CONTRACTOR_____ CONTRACT NUMBER_____

PROJECT NAME_____LOCATION_____

WEATHER: TYPE___ TEMP.MAX___MIN___RAIN FALL___GAGE READING__

EMPLOYEES: SUPV__ SKILLED__ LABORERS__ LENGTH OF SHIFT__HR__

NAME (PRIME OR SUBCONTRACTOR) AND AREA OF RESPONSIBILITY
WORK RESPONSIBILITY:

a.

b.

c.

d.

e.

WORK PERFORMED TODAY: LOCATION, DESCRIPTION, QUANTITY AND RESPONSIBILITY BY LETTER REFERENCE (Relate to item on the Progress Chart or CPM)

INSPECTION: (Description of Inspection and Location. Include off-site Materials and Equipment Inspection)

a. PREPARATORY PHASE:

b. INITIAL PHASE:

c. FOLLOW-UP PHASE:

RESULTS OF INSPECTION (Include Findings, Deficiencies Observed and Corrective Action)

ATTACHMENT 1
PAGE 1 OF 2

DAILY CONSTRUCTION QUALITY CONTROL MANAGEMENT REPORT (CONTINUED)

TEST PERFORMED: Type, Location, Results Including Failure & Remedial Action (Attach copy of test report or notation when it will be furnished)

WORK ITEMS BEHIND SCHEDULE: Reason, Effect on Progress Schedule and Action Taken.

JOB SAFETY: (Report conditions, Deficiencies, Corrective Action & Results)

REMARKS: List Attachment and Other Management Actions Taken To Assure Quality Construction.

IF INSPECTION & RESULTS ARE NOT LISTED THEN IT IS ASSUMED THAT QUALITY CONTROL IS NOT BEING IMPLEMENTED.

The above report is complete and correct and all material, equipment, work performed, and tests conducted are in strict compliance with the terms of the contract except as noted.

_____

CONTRACTOR'S APPROVED REPRESENTATIVE SIGNATURE

ATTACHMENT 1
PAGE 2 OF 2

PREPARATORY PHASE CHECKLIST

Contract No._____ Date Preparatory Held:_____
Title:_____ Spec Section_____
Drawing No.(a):_____

Definable Feature of Work: _____

_____

A. PERSONNEL PRESENT

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

(List additional personnel on reverse side)

B. DRAWINGS AND SPECS:

I. Has each spec paragraph, contract drawing, and shop drawing been studied: YES____ NO____

II. Do all parties have up-to-date drawings and specifications: YES____ NO____

C. SHOP DRAWINGS INVOLVED:

	Transmittal Description	Trans. #	Action Code
1.			
2.			
3.			

ATTACHMENT 2
PAGE 1 OF 3

D. MATERIALS:

I. Are all materials on hand? YES___ NO___

II. Have all materials been checked for contract compliance against approved shop drawings: YES___ NO___

III. Items not on hand or not in accordance with transmittals (If not on hand, check during initial phase)

1. _____

2. _____

3. _____

4. _____

E. Test required in accordance with contract requirements:

Test/Paragraph Frequency

1. _____

2. _____

3. _____

4. _____

5. _____

F. ACCIDENT PREVENTION: Has Hazard Analysis been completed? YES____ NO____ If yes, attach a copy, if no, explain:

_____

_____

_____

_____

ATTACHMENT 2
PAGE 2 OF 3

G. EQUIPMENT REQUIRING OPERATIONAL CHECK:

1. _____

2. _____

3. _____

4. _____

H. WORKMANSHIP: Have procedures for accomplishing work been reviewed with the Contractor Quality Control Representative and other appropriate people?
YES____ NO____

I. PREVIOUS WORK: Has all preliminary work been accomplished in accordance with contract requirements and is this feature of work ready to start?
YES____ NO____

Explain any problems: _____

_____

_____

_____

_____

_____

J. OTHER COMMENTS: _____

_____

_____

_____

_____

_____

_____
CONTRACTOR QUALITY CONTROL REPRESENTATIVE

_____
GOVERNMENT QUALITY ASSURANCE REPRESENTATIVE

ATTACHMENT 2
PAGE 3 OF 3

INITIAL INSPECTION CHECKLIST

CONTRACT:_____DATE:_____

Description and Location of Work Inspected:_____

_____

Spec. Sec._____

REFERENCE CONTRACT DRAWINGS:_____

A. PERSONNEL PRESENT:

	NAME	POSITION	COMPANY
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

B. Materials being used are in strict compliance with the contract plans and specifications: YES____ NO____

If Not, explain _____

_____

_____

ATTACHMENT 3
PAGE 1 OF 2

C. PROCEDURE AND/OR WORK METHODS WITNESSED ARE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS: YES____ NO____

If not, explain: _____

_____

_____

D. WORKMANSHIP IS ACCEPTABLE: YES____ NO____ STATE AREAS WHERE IMPROVEMENT IS NEEDED: _____

_____

_____

E. SAFETY VIOLATIONS AND CORRECTIVE ACTION TAKEN: _____

_____

_____

_____

_____

_____
CONTRACTOR QUALITY CONTROL REPRESENTATIVE

ATTACHMENT 3
PAGE 2 OF 2

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SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

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-- End of Section Table of Contents --

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Site Plan; G,DC

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

1.3 USE OF UTILITY SERVICES

1.3.1 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer.

1.3.2 Telephone, Water and Electricity

The Contractor shall make arrangements and connect, maintain, and pay all costs for telephone, water and electricity use.

1.4 PROJECT SIGN AND PROJECT SAFETY SIGN

1.4.1 Project and Safety Signs

The requirements for the signs, their content, and location shall be as specified in SECTION 01580, PROJECT SIGN AND SAFETY SIGN.

1.5 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.5.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control shall be adequate to ensure safe operations and compliance with the environmental dust control criteria specified in SECTION 01355 ENVIRONMENTAL PROTECTION at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.5.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.5.3 Haul Roads Over Existing Trench Cutoff Wall

Heavy construction equipment and machinery shall only be driven over the soil-bentonite slurry trench cutoff wall at designated crossing points. At these crossing points, the contractor shall provide suitable roadway support for equipment without damaging the cutoff wall. The design and choice of materials for the roadway support at the crossing points are the

responsibility of the contractor.

1.6 CONTRACTOR'S TEMPORARY FACILITIES

1.6.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area.

1.6.2 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on site.

1.6.3 Security Provisions

The contractor shall provide a security guard at the entrance of the site during work hours. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the site. Adequate outside security lighting shall be provided at the Contractor's temporary facilities.

1.7 GOVERNMENT FIELD OFFICE - Not Used

1.8 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. The Contractor take all necessary precautions to prevent any dirt or mud onto paved or surfaced roadways. If it occurs, it shall be cleaned away immediately. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.9 RESTORATION OF STORAGE AREA - Not Used

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

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-- End of Section Table of Contents --

SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASME INTERNATIONAL (ASME)

ASME B30.3	(1996) Construction Tower Cranes
ASME B30.5	(2000) Mobile and Locomotive Cranes
ASME B30.8	(2000) Floating Cranes and Floating Derricks
ASME B30.22	(2000) Articulating Boom Cranes

THE NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses
29 CFR 1910	Occupational Safety and Health Standards for General Industry
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response

U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual,including all amendments to that document finalized and posted at http://www.usace.army.mil/publications/eng-manuals/ceso. at the time of Contract Award

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1998) Portable Fire Extinguishers
NFPA 51B	(2003) Fire Prevention During Welding, Cutting, and Other Hot Work

NFPA 241 (2000) Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan; G,SO,CS,HE
Spill and Discharge Control Plan; G,CS,HE
Decontamination Plan; G,CS,SO,HE
Activity Hazard Analysis; G,SO,CS
Crane Critical Lift Plan; G,CS
Crane Work Plan; G, CS
Proof of Qualification for Crane Operators; G,CS

SD-06 Test Reports

Accident Reports
Monthly Exposure Reports
Regulatory Citations and Violations
Crane Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

SD-07 Certificates

Confined Space Entry Permit

Submit one copy each of permit attached to each Quality Control Report. (If required)

Certificate of Compliance (Crane)

Third Party Certification of Barge-Mounted Mobile Cranes (if any)

1.3 DEFINITIONS

a. Certified Industrial Hygienist (CIH). An individual who is currently certified as a CIH by the American Board of Industrial Hygiene. in respect of qualifications and authority.

b. Safety Health Manager. A Certified CIH or a Certified Safety Professional (CSP) with a minimum of three years experience in developing and managing safety and occupational health programs at construction projects.

c. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application

and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

d. Site Safety and Health Officer (SSHO). The qualified or competent person who is responsible for the on-site safety and health required for the project.

e. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

f. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician Medical treatment does not include first aid treatment even though provided by a physician or registered personnel.

g. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

h. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

i. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work;

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

j. "USACE" property and equipment specified in EM 385-1-1 should be interpreted as Government property and equipment.

k. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure

results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

The Government does not consider this contract to be a hazardous waste site cleanup project and therefore does not require OSHA's HAZWOPER standard (29 CFR 1910.120/29 CFR 1926.65) to be applied to the Contract. The sediments that have to be removed in order to remove the obstructions are contaminated. A profile of the contaminants in the sediments is included in this specification package, in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS. Regardless of HAZWOPER application, the contractor is expected to take the steps necessary to protect employees from unacceptable chemical exposure while construction work is performed. Protective measures for chemical exposure and all other hazards expected while performing this project are to be addressed in the Accident Prevention Plan (APP) and Activity Hazard Analyses (AHA) for the project.

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with EM 385-1-1, and the following federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the Contracting Officer for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements and perform the following duties:

- Possess 3 years experience implementing safety and occupational health programs on construction projects.

- Have the knowledge and experience to function on site as the competent person for the following: Respiratory Protection, Excavation; Fall protection; Hazardous energy; Confined space; Health hazard recognition, evaluation and control; personal protective equipment and clothing including respirators.

- Shall be assigned to the site on a full-time basis for the duration

of field activities to oversee safety and occupational health requirements for the project.

- Perform occupational exposure monitoring as indicted in the APP and/or AHAs and as directed by the SHM.

- Have the authority to enforce APP and AHA requirements, stop work if unacceptable safety and occupational health conditions exist and take the necessary action to correct unacceptable safety and occupational health conditions.

- Assist the SHM with development of an on-site training program and conduct both initial and periodic on-site safety and occupational health training sessions.

- Perform daily safety and occupational health inspections and document results on the Daily Safety Inspection Log in accordance with 29 CFR 1904. If necessary, develop accident reports. Safety inspection logs shall be attached to the Contractors' daily quality control report.

- Oversee and provide input to the development of AHAs as necessary during the course of the project.

- Serve as a member of the contractor's quality control staff in a safety and occupational health capacity and, work together with the SHM, site superintendent and the Contracting Officer to correct (if necessary) and improve safety and occupational health requirements during the course of the project.

- Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.

- Maintain applicable safety reference material on the job site.

- Attend the pre-construction safety conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.

- Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.

- Ensure sub-contractor compliance with safety and health requirements.

1.6.1.2 Safety and Health Manager (SHM)

The SHM shall be a CIH or CSP with a minimum of 3 years experience developing and managing safety and occupational health programs at construction project and shall have documented experience developing worker exposure assessment programs and managing personal protective equipment programs including respirators.

The SHM shall:

- Develop, and oversee implementation of the (Accident Prevention Plan (APP) and Activity Hazard Analyses (AHAs) for the project

- Sign and date the APP and AHAs to indicate approval

- Visit the site as needed to audit effectiveness of the APP and active AHAs.

- Support the SSHO by evaluating exposure monitoring results and use of PPE or implementation of engineering controls.

- Develop and maintain together with the SSHO a safety and occupational health training program to provided to on-site employees. Assist the SSHO with on-site training as necessary.

- Coordinate modifications to the APP and AHAs with the SSHO, site superintendent, and the Contracting Officer

- Review daily inspection reports and accident reports

- Serve as a member of the contractor's quality control staff.

1.6.1.3 Crane Operators

Crane operators shall meet the requirements in EM 385-1-1, Section 16 and Appendix G. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacitates of 50,000 pounds or greater, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or and organization that tests and qualifies crane operators. Proof of current qualification for crane operators shall be provided.

1.6.2 Meetings

1.6.2.1 Preconstruction Safety Conference

a. The Contractor will be informed, in writing, of the date of the Preconstruction Safety Conference. The purpose of the Preconstruction Safety Conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's Accident Prevention Plan (APP) before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the Preconstruction Safety Conference. This includes the project superintendent, SSHO, SHM and quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP and AHAs will be brought to the attention of the Contractor at the preconstruction safety conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

1.6.2.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.2.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with EM 385-1-1 and the accepted Accident Prevention Plan (APP). Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The SHM shall prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below at paragraph 1.8.1.

The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the

subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site Safety Health Manager (SHM) and the safety and health officer (SSHO).

The APP shall include a diver safety plan, in accordance with EM 385-1-1, describing procedures related to underground pipe removal and related to operations associated with petroleum contaminated soils and water. Furnish the name and qualifications based on education, training, and work experience of the proposed diver to the Site Safety and Health Officer and also, to be reviewed by Corps' Safety Office.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the Preconstruction Safety Conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions. Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SHM, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of SSHO and SHM.

b. Health Hazard Control Program. The SHM shall develop a Health Hazard Control Program that covers applicable portions of EM 385-1-1, Section 6 and incorporate the program into the project APP. The program shall ensure that employees, on-site Government representatives, and others, are protected from exposure to the chemicals will be disturbed and handled by the construction activities or that are brought on to the site to aid in project execution.

c. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of EM 385-1-1, paragraph 16.c.18. and the following:

(1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.550(g).

(2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

d. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

e. Fall Protection and Prevention (FP&P) Plan. Develop the plan if applicable to site activities. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

f. Training Records and Requirements. List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

g. Crane Work Plan. The contractor shall provide a crane work plan to the Contracting Officer for acceptance. The crane work plan shall include the specific model of each crane and a drawing identifying their locations (exact), the dimensions, wheel sizes, number of wheels, wheel spacing, tire pressure(s), number of axles, axle spacing, minimum wheel load to be exerted during operations and maximum outrigger load to be exerted during operations. The Contractor shall allow at least 10 working days for acceptance/non-acceptance of the crane work plan.

No crane operations shall begin prior to written acceptance of the crane work plan by the Government.

1.9 SPILL AND DISCHARGE CONTROL PLAN

Develop, implement, and maintain a comprehensive spill and discharge control plan. The plan shall provide contingency measures for potential spills and discharges from handling and transportation of contaminated soils and water. A possible source of guidance for assessment and remediation is API PUBL 1628.

1.9.1 Personnel Protection

Furnish appropriate personal safety equipment and protective clothing to personnel and ensure that safety equipment and protective clothing is kept clean and well maintained. For entry into the Exclusion Zone (EZ), the Contractor shall furnish the Contracting Officer or official visitors, clean sets of personal protective equipment and clothing for their use, as required.

1.9.2 Respiratory Protection Program

Develop a respiratory protection program, addressing respirator usage and training, in accordance with EM 385-1-1.

1.9.3 Emergency Response Requirements

Furnish emergency response and contingency plan in accordance with 29 CFR 1910. In an emergency, take action to remove or minimize the cause of the emergency, alert the Contracting Officer, and institute necessary measures to prevent repetition of the emergency. Equip site-support vehicles with route maps providing directions to the medical treatment facility.

1.9.4 Unforeseen Hazards

Notify the Contracting Officer of any unforeseen hazard or condition which becomes evident during work.

1.10 DECONTAMINATION PLAN

Decontamination plan shall be developed in complete accordance with 29 CFR 1910.120 and describes the number and placement of decontamination stations, equipment, solutions, and methods used to decontaminate personnel and equipment, and the anticipated effectiveness of the decontamination program. All wastewater collected from decontamination procedures shall be disposed of off-site in accordance with appropriate and applicable local, state and federal regulations. The Contractor shall decontaminate all personnel and equipment before exiting the work zones. The Roll Off Box and transport vehicles shall be thoroughly decontaminated and inspected by the COR for approval before leaving the site. The SSHO shall be responsible for ensuring that personal protective clothing and equipment are decontaminated before being reissued.

The Contractor shall submit the decontamination plan to the Contracting Officer 15 calendar days prior to the date of the Preconstruction Safety Conference for acceptance. Work cannot proceed without an accepted decontamination plan. The Contracting Officer reviews and comments on the Contractor's submitted decontamination plan and accepts it when it meets the requirements of the contract provisions. Once accepted by the

Contracting Officer, the decontamination plan and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted decontamination plan will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

1.11 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with EM 385-1-1. Submit the initial AHA as a part of the Accident Prevention Plan (APP). Submit any amendment or supplement to existing AHA's for newly defined features of work for review, at least 15 calendar days prior to the start of work phase covered by the amendment. Format subsequent AHA as amendments to the APP. AHAs will be developed by the contractor personnel or subcontractor personnel who are most familiar with the construction activity to be performed. AHA will be developed for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall protection methods used. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.12 DISPLAY OF SAFETY INFORMATION

Within 3 calendar days after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

a. Map denoting the route to the nearest emergency care facility.

b. Emergency phone numbers.

c. Copy of the most up-to-date APP.

d. Current AHA(s).

e. OSHA 300A Form.

f. OSHA Safety and Health Protection-On-The-Job Poster.

g. Confined space entry permit.

h. Hot work permit.

1.13 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.14 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.15 REPORTS

1.15.1 Accident Reports

For recordable injuries and illnesses, and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.15.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than $2,000, or any weight handling equipment accident. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.15.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special

forms.

1.15.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.15.5 Crane Reports

Submit crane inspection reports required in accordance with EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.16 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be requested from the the SSHO CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site for a minimum of 30 minutes after completion of the task or as specified on the hot work permit.

a. The storage of combustible supplies shall be a safe distance from structures.

b. All portable electric devices (saws, sanders, compressors, extension chord, lights, etc.) shall be disconnected at the close of each workday. When possible, the main electric switch in the facility shall be deactivated.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

The Contractor shall provide permanent signs integral to or securely attached to access covers for new permit-required confined spaces. Signs wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in bold letters a minimum of one inch in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 5 feet.

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard shall prevail.

3.1.1 Unforeseen Hazardous Material

If material, not indicated, that may be hazardous to human health upon

disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 15 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 EQUIPMENT

3.3.1 Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

d. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

e. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.

f. The Contractor shall comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.

g. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.

h. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.

i. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.

j. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.

k. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

l. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.

m. All employees shall be kept clear of loads about to be lifted and of suspended loads.

n. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.

o. The Contractor shall use cribbing when performing lifts on outriggers.

p. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

q. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

r. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.

s. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

t. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

u. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.3.2 Equipment and Mechanized Equipment

a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.4 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. The competent person shall perform soil classification in accordance with 29 CFR 1926.

3.4.1 Shoring Systems

Trench, shoring systems (SECTION 02250 SHORING SYSTEMS) must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data.

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SECTION 01580

PROJECT SIGN AND SAFETY SIGN

PART 1 GENERAL

1.1 SCOPE

The work covered by this Section consists of providing the fabrication, erection and maintenance of one project sign and one safety sign. The items furnished in accordance with this Section shall be furnished within 10 days after Notice to Proceed and shall be maintained in good condition throughout the construction period. All items will remain the property of the Contractor and shall be removed at the end of the contract.

1.2 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP 310-1-6-80	Graphic Standards Manual
EP 310-6a-85	Sign Standards Manual
EP 310-6b-85	Sign Standards Manual
EM-385-1-1	Safety and Health Requirements Manual,Sections 4,11

1.3 MEASUREMENT AND PAYMENT

1.3.1 MEASUREMENT - NOT USED

1.3.2 PAYMENT

No separate or direct payment will be made for the items listed in this Section, and such work will be considered as a subsidiary obligation of the Contractor.

PART 2 PRODUCTS

2.1 CONSTRUCTION PROJECT SIGNS

a. Two (2) construction project signs shall be provided at locations coordinated with the Contracting Officer. The signs include one (1) Project Identification Sign and one (1) Safety Performance Sign.

b. The construction project sign panels will each be electronically printed as a single decal and mounted on single sided vinyl faced White Board as described in Paragraph "MATERIALS" below.

c. An electronic file will be furnished by the Contracting Officer containing the layouts of the construction project signs. The electronic layouts will be Adobe Illustrator files (compatible with version 6.0 or newer) in Macintosh format. All components of the layout design contained

within the files will be provided in vector format.

2.1.1 PROJECT IDENTIFICATION SIGN

One (1) project identification sign constructed in accordance with Plate 01580-1 and applicable publications shall be provided by the Contractor.

2.1.2 SAFETY PERFORMANCE SIGN

a. One (1) safety performance sign constructed in accordance with Plate 01580-2 and applicable publications shall be provided by the Contractor.

b. The safety performance record shall be updated daily.

2.1.3 MATERIALS

The following are requirements for all of the construction project signs.

a. The sign faces shall be electronically printed on white non-reflective vinyl decals four (4) mil thick.

b. The sign face decals shall be mounted on panels of 1/2" thick White Board with single-sided vinyl facing. The entire circumference of the sign panels will be sealed and protected with white vinyl trim cap.

c. A protective overlaminate film shall be applied over the sign face decals capable of minimizing the deteriorating effects of ultraviolet radiation and providing additional protection against weathering and application of graffiti.

d. 2"x4" struts will be installed between the 4"x4" support posts to reinforce the top and bottom edges of the sign panels.

e. Wood material for the posts shall be preservative treated, structural grade Douglas Fir or No. 1 Southern Pine, or better. All other wood members shall be of well seasoned, kiln dried, clear redwood, bald cypress, red cedar, Douglas fir, spruce, tulip poplar, or white pine. The lumber materials shall be free of splits, wane, and loose knots or pitch pockets. All members of the sign shall be fastened with screws or bolts of type, size, number, and spacing to provide rigid construction and neat appearance. If the vertical supports system does not rigidly support the sign due to local soil conditions and/or wind loading additional bracing of the sign supports shall be provided. This additional bracing shall be composed of 2"X4" bracing bolted to the inside face of each 4"x4" support post and firmly anchored to the ground behind the sign. This additional bracing is not required to be treated lumber.

f. All bolts shall be 0.375" diameter and 4" long Allen head bolts, threaded to match T-nuts.

PART 3 EXECUTION

3.1 INSTALLATION

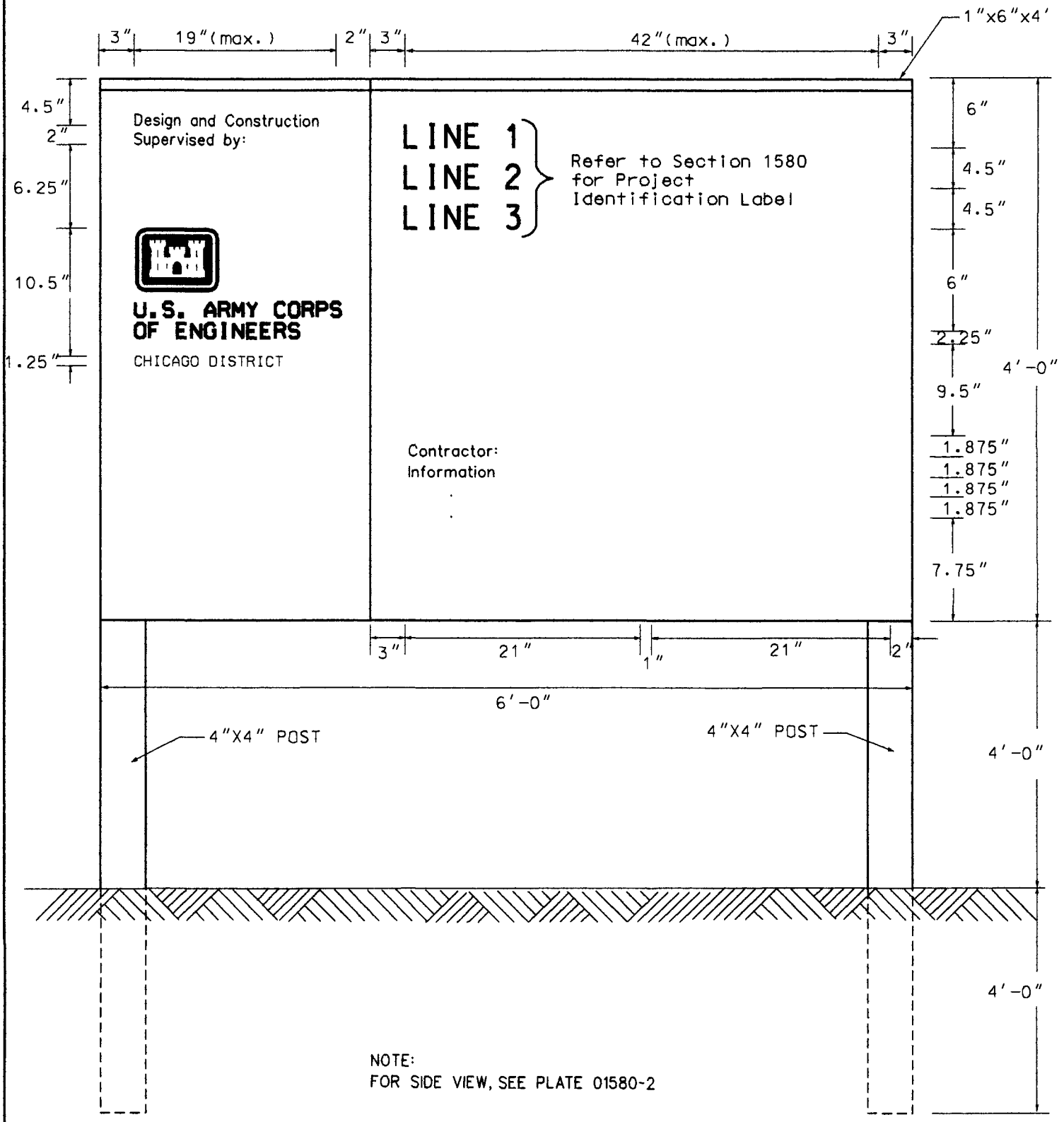
The Contractor shall affix the panels to the posts with the Allen head bolts prior to erection of the signs, including drilling counter-sunk .375 inch diameter holes in the posts to match the T-nut locations. The Contractor shall take all precautions necessary to protect the faces of the signs from damage during assembly and construction. The signs shall be

installed upon commencement of the work under this contract. The location in which each sign is to be installed shall be cleared and leveled to facilitate the installation of, and provide easy visual contact with, the signs. Installation and positioning of the sign plate and posts shall be as indicated on Plates 01580-1 and 01580-2, found at the end of this section. Excavation and backfilling of the holes for posts and installation of the posts, braces, and stakes shall be such that signs are installed plumb and level.

3.2 MAINTENANCE

The Contractor shall maintain the signs in good condition and the sign site in a neat condition throughout the construction period.

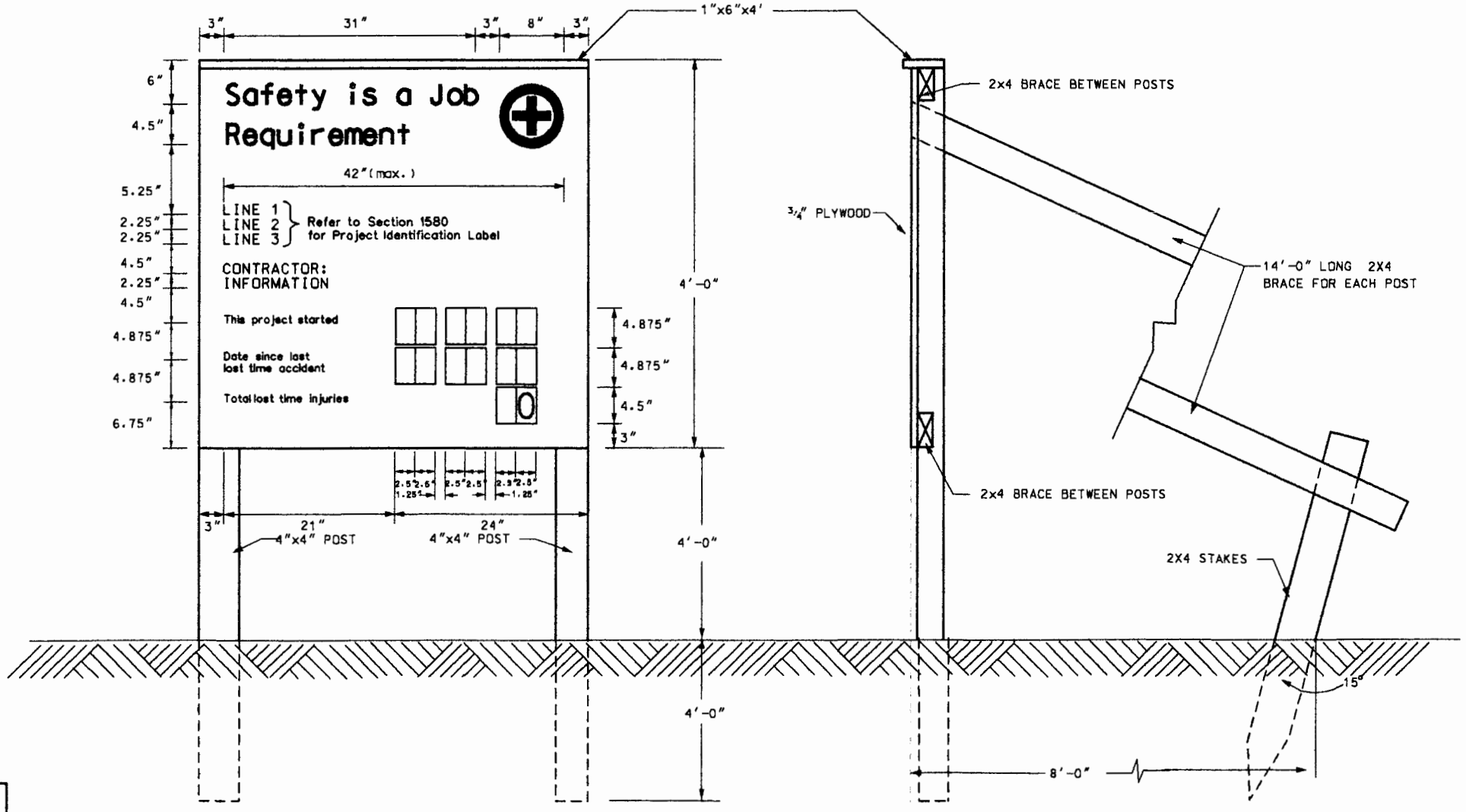
-- End of Section --



NOTE:
FOR SIDE VIEW, SEE PLATE 01580-2

GENERIC PROJECT IDENTIFICATION SIGN

NOT TO SCALE



GENERIC SAFETY PERFORMANCE SIGN

NOT TO SCALE

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SECTION 02115

REMOVAL AND DISPOSAL OF UNDERGROUND PIPES

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN PETROLEUM INSTITUTE (API)

API RP 1604	(1996) Closure of Underground Petroleum Storage Tanks

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 280	Owners and Operators of Underground Storage Tanks

1.2 DESCRIPTION OF WORK

Since the ECI property is a former petroleum refinery site, it is possible that abandoned underground petroleum transmission piping, or other abandoned petroleum transportation facilities will be encountered during this project. EPA has completed their pipeline removal construction that includes pumping and grouting of pipes as shown within the dredging / shoring system 1 in 2001. The EPA pipeline removal report is available upon request. In general, these features will be excavated, cleaned, crushed, and stockpiled on-site. Off-site disposal of underground pipes or related objects is not required for this project. It is the responsibility of the Contractor to determine whether any underground storage tanks pipes encountered on the project site are registered tanks in the State of Indiana. Registered tanks pipes must be handled in accordance with Indiana regulations. Refer to SECTION 02325 DREDGING, for Dredging requirements prior to removing pipes.

1.2.1 Pipe Capping

The work involve in pipe capping are as follows:

1. Cutting and capping grouted pipes as shown on the plan.
2. Remove pipes as shown on plans.
3. Dispose of piping that was removed to on-site location.
4. Dewatering (if approved).
5. Laboratory testing.
6. Providing reports which are required by regulatory agencies.

1.2.2 Regulations

Perform work in accordance with local, State, and Federal regulations and 40 CFR 280.

1.3 SUBMITTALS

Submit the following in accordance with SECTION 01330, SUBMITTAL PROCEDURES.

SD-01 Preconstruction Submittals

Piping removal and disposal plan;G,CS

Spill and discharge control plan;G,HE

SD-06 Test Reports

Laboratory testing reports;G,HE

The reports should include location of dredged material and associated OVA/FID (organic vapor analyzer/flame ionization device) readings, TPH (total petroleum hydrocarbons), and BTEX (benzene, toluene, ethylbenzene, and xylene), and TCLP (toxicity characteristic leaching procedure) sampling and test results. If BTEX indicates gasoline, then provide TCLP results.

SD-07 Certificates

Qualifications;G

SD-11 Closeout Submittals

Inspection permits, and other permits;G,TCS

Required for underground pipe removal.

Identification of pipes removed and disposed of;G,TCS

Submittal to include site map showing location of piping.

Starting and ending dates of reporting period;G,TCS

Closure report;G,TCS

Incorporate reports, records, and data into a single binder with the title "SITE ASSESSMENT REPORT" on the cover of the binder.

1.4 QUALIFICATION (CONTRACTOR EXPERIENCE)

Submit data for approval showing that the pipe removal Contractor, subcontractors, and personnel employed on the project have been engaged in removal, transportation, and disposal of underground piping including removal work in the water, are familiar with and shall abide with the following:

a. API RP 1604.

b. 40 CFR 280 and State and local regulations and procedures.

c. Applicable safety rules and regulations.

d. Handling and disposal of types of wastes encountered in underground tank and pipe removal including disposal of underground piping.

e. Excavation, testing, and disposal of petroleum contaminated soils, liquids, and sludge.

f. Provide documentation that tank and or pipe removers are certified if locality of project has this requirement.

In addition, furnish data proving experience on at least three prior projects which included types of activities similar to those in this project. Provide project titles, dates of projects, owners of projects, point of contact for each project, and phone numbers of each point of contact.

1.5 COMPLIANCE

Comply with applicable local, State, and Federal laws regulations, procedures, and 40 CFR 280.

1.6 PIPING REMOVAL AND DISPOSAL PLAN

Describe methods, means, equipment, sequence of operations and schedule to be employed inspecting, cutting, capping, handling, and transport of pipes for disposal to on-site location. Fifteen days before beginning pipe removal work, submit to the Contracting Officer for approval the piping removal and disposal plan that describes phases of dealing with cutting, capping and removal of the pipes in the canal, including safety precautions and requirements.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 REMOVAL OF UNDERGROUND PIPING

3.1.1 Preparation

API RP 1604. Contractor shall expose and verify all pipes prior to cutting and capping operation. Contractor shall remove the fill pipe, gage pipe, vapor recovery truck connection, submersible pumps, drop tube, cap or remove non-product piping except vent piping, plug tank openings so that vapors will exit through vent piping during the vapor-freeing process and other preparation to ensure the safety of this operation. The Contractor shall take necessary precautions to avoid damage to sheet pile wall system and any damaged shall be repaired or replaced as approved by the Contracting Officer.

3.1.2 Cutting Pipe

The contractor shall make a clean cut to the pipes identified to be cut and capped. Contractor shall take necessary precautions to avoid damage to sheet pile wall systemThe pipes shall be capped as described in the Obstruction Cap, Plug, and Closure Requirements paragraph.

3.1.3 Obstruction Cap, Plug, and Closure Requirements

All pipes and tiles shall be plugged, capped and/or closed to eliminate the possible inflow of petroleum or other contaminates transited by the piping

to the canal. For all size pipes, mechanical plugs shall be used. As a minimum, the mechanical plug shall have a natural rubber "O" ring, which can be expanded to the inside diameter of the pipe using a wing nut. After the pipes are capped, the contractor shall not backfill dredged area until an independent diver perform a check of work. The available information on the utilities and pipelines is included in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS. The Contractor shall develop details for the plugs and concrete bulkhead, and submit it to the Contracting Officer for approval prior to dredging.

3.2 INSPECTIONS

Arrange for and perform required inspections. Provide copies of inspections to Contracting Officer.

3.3 CLOSURE REPORT (SITE ASSESSMENT REPORT)

Provide the Contracting Officer a Site Assessment Report in a single binder notebook which shall contain a collection of reports, records, starting and ending dates of reporting period, inspections, documentation, and data as follows:

a. Description of work, including removal procedures, number of pipes removed, identification of pipes removed and disposed of, cubic yards of excavated soil, location of disposal sites, and dates of excavation.

b. Site plan, including location of pipes, limits of excavation, sampling points, results of excavation, and depths.

c. Certifications required by implementing agency.

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SECTION 02216

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SECTION 02216

SILT TURBIDITY CURTAIN

PART 1 GENERAL

1.1 SCOPE

The work consists of furnishing labor, material, equipment, and placing a silt turbidity curtain as specified herein and as shown in the plans.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 4491	Water Permeability of Geotextiles by Permittivity
ASTM D 4533	Trapezoidal Tearing Strength of Geotextiles
ASTM D 4632	Breaking Load and Elongation of Geotextiles (Grab Method)
ASTM D 4751	Determining the Apparent Opening Size of a Geotextile
ASTM D 4833	Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	Guide for Identification, Storage and Handling of Geotextiles

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Turbidity Curtain Work Plan; G,CC & HE*

Within 10 days after written Notice to Proceed, the Contractor shall submit the Turbidity Curtain Work Plan. The Turbidity Curtain Work Plan shall incorporate the requirements specified herein with respect to the geotextile filter fabric, cable, chain, flotation elements, and fasterners regarding installation and anchoring procedures. This plan shall provide information on the delivery of the silt curtain to the site, handling, storage, and placement procedures and method of disposal of silt curtain upon completion of construction. Fabrication details or installation techniques that differ from those specified herein shall be

documented in the Turbidity Curtain Work Plan and submitted for consideration by the Contracting Officer's Representative. However, rejection of alternative methods suggested by the Contractor shall not constitute a basis for claim. An additional approver will be TS-HE.

SD-03 Product Data

Manufacturer's certified material property data sheets

Manufacturer's quality control manual

Manufacturer's certified quality control test results

Warranty

Written warranties addressing geotextile material workmanship shall be submitted to the Contracting Officer's Representative. The manufacturer's warranty shall state that the installed material meets all requirements of the contract documents.

SD-04 Samples

Geotextile fabric, chain, cable, and float material samples

SD-06 Test Reports

Friction Test Results

Certified laboratory interface friction test results including description of equipment and test method.

PART 2 PRODUCTS

The silt turbidity curtain shall consist of a IWT/CARGO GUARD Turbidity Barrier shown in the plans, or similar material as approved by the Contracting Officer's Representative. A sketch of a silt turbidity curtain is included as Attachment 02216-01 at the end of this section. The Contracting Officer's Representative's approval of the material shall not relieve the Contractor of responsibility for the requirements in SECTION 02216 SILT TURBIDITY CURTAIN.

2.1 GEOTEXTILE FABRICS

The Supplier shall select a 6% geotextile filter fabric, which meets all specification requirements and is chemically compatible with all contact materials. The geotextile shall be a woven monofilament yarn. The geotextile fiber shall consist of long-chain polymers composed of at least 100 percent by weight of polypropylene. The fabric shall be fixed so that the yarns will retain their relative position with respect to each other. The edges of the fabric shall be finished to prevent the outer yarn from pulling away from the fabric. The geotextile physical properties shall equal or exceed the minimum values listed in below. Test values shown are minimum average roll values.

Property	Test Method	Test Value
Water flow rate (gpm/ft2)	ASTM D 4491	18
Puncture (lbs)	ASTM D 4833	120
Tensile grab (lbs)	ASTM D 4632	370 x 250

Property	Test Method	Test Value
Tensile elongation (percent)	ASTM D 4632	15
Trapezoidal tear (lbs)	ASTM D 4533	100 x 70
AOS (U.S. Sieve no.)	ASTM D 4751	70
Permittivity (sec-1)	ASTM D 4491	0.28

The geotextile fabric shall be sewn with polypropylene thread such that there is a pocket for the closed cell foam flotation and a pocket for the cable at the top of the fabric and a pocket for the chain at the bottom of the fabric. The polypropylene thread shall have a minimum tensile strength of 90 percent of the seam strength of the geotextile fabric. The geotextile fabric shall be of sufficient length from the top of the foam flotation pocket to the bottom of the chain pocket to reach from the bottom of the canal to the water surface. Due to variable sediment surface depths skirt adjusting lines may be needed to reduce resuspension. All pockets shall have a small 1/8-inch diameter polypropylene bailer cord, which runs the length of the silt curtain in the pocket for the purpose of pulling weights and cords through the pockets.

2.2 CABLE

The supplier shall supply a 5/16-inch diameter PVC coated top tension cable. This cable shall be capable of being pulled through the cable pocket for the purpose of anchoring the silt turbidity curtain to the shore. This cable shall withstand all loads that are placed on it during obstruction removal project. The flotation blocks discussed below must remain at the water surface after the cable is tied to the shore.

2.3 CHAIN

The supplier shall supply a 5/16-inch diameter galvanized steel ballast chain capable of being pulled through the chain pocket at the bottom of the silt curtain. The chain shall be capable of maintaining the silt turbidity curtain contact with the bottom of the canal.

2.4 FLOATATION BLOCKS

The supplier shall supply internal expanded polyethylene foam flotation elements capable of being pulled through the flotation pocket at the top of the silt curtain. The foam flotation elements shall be sufficient size to maintain buoyoncy. The foam flotation elements shall be capable of maintaining the silt turbidity curtain at the water surface once the geotextile is fully wetted, the chain ballast is in place, and the cable is tied to the shore.

2.5 FASTENERS

The supplier shall supply fasteners to fasten silt curtain sections together and remain intact for the duration of the dredging according to SECTION 02325 DREDGING. Fasteners shall not pose a hazard to wildlife within the lake ecosystem.

2.6 TESTS AND INSPECTIONS

2.6.1 Geotextile Fabric

All geotextiles shall be randomly sampled and tested in accordance with the manufacturer's quality control program manual to evaluate the required physical properties. The manufacturer's quality control program shall

perform tests at the following frequencies, or at a minimum of one per lot, whichever results in the greater number of tests:

Property	Test Frequency
AOS	One per 100,000 square feet
Water flow rate	One per 50,000 square feet
Puncture	One per 50,000 square feet
Tensile grab	One per 50,000 square feet
Tensile elongation	One per 50,000 square feet
Trapezoidal tear	One per 50,000 square feet

Certified test results on each sample shall be submitted to the Contracting Officer's Representative. In addition, one sample of each geotextile type to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be the full manufactured width of the geotextile by at least five (5) feet long. Samples not meeting the minimum requirements specified shall result in the rejection of the corresponding lot.

2.6.2 Cable

One sample of each type of cable to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.3 Chain

One sample of each type of chain to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.4 Flotation Blocks

One sample from each manufacturer of the flotation element to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material. Each sample shall be at least four (4) feet long.

2.6.5 Fasteners

One sample of each type of fastener to be used shall be provided to the Contracting Officer's Representative for quality assurance review and permanent record of actual furnished material.

PART 3 EXECUTION

3.1 DELIVERY

The silt turbidity curtain materials shall be delivered to the site.

Geotextiles shall be labeled, shipped, stored, and handled in accordance with ASTM D 4873 and as specified herein. Silt curtain sections may be delivered on pallets. Each pallet shall be labeled with 1) the manufacturer's name, 2) geotextile type, 3) lot number, 4) curtain dimensions, including length, width, or gross weight and 5) date manufactured. Geotextile damaged as a result of delivery, storage, or

handling shall be repaired or replaced, as directed, at no additional cost. The pallets shall be off-loaded from the delivery truck using a forklift or similar equipment.

Cable, chain, flotation elements, and fasteners shall be packaged separately and shall be labeled with 1) the manufacturer's name, 2) product dimensions, including, but not limited to length, width, or gross weight, and 3) number of items in each container. Materials damaged as a result of delivery, storage, or handling shall be repaired or replaced, as directed, at no additional cost.

3.2 HANDLING

No hooks, tongs, or other sharp instruments shall be used for handling the geotextiles. Geotextiles shall not be dragged along the ground. Care should be taken handling the flotation blocks to prevent denting them. Chain and cable shall not be dragged over any sharp edges.

3.3 STORAGE

Geotextile fabric, chain, cable, flotation elements, and fasteners shall be stored according to manufacturer's specifications. Geotextiles shall be stored in areas where water cannot accumulate, elevated off the ground, and protected from conditions that will affect the properties or performance of the geotextile. The Contractor will inspect the storage location and recommend any changes needed to the Contracting Officer's Representative. Storage location preparation shall be the responsibility of the Contractor. Prior to installation, the geotextile shall not be exposed to direct sunlight for more than 14 days. Any silt curtain materials damaged during delivery, storage, or handling methods shall be repaired or replaced as directed by the Contracting Officer's Representative at no additional cost.

3.4 PLACEMENT

The silt curtain will be placed in the locations shown in the plan C-03 and C-07. Prior to placement of the silt curtain, the Contracting Officer's Representative shall inspect the area; no silt curtain shall be placed until the area has been favorably reviewed.

The silt curtain shall be so placed as to produce continuous contact with the canal floor. Means of assuring that the fabric is properly aligned and anchored shall be incorporated into the placement methodology presented in the contractor's Turbidity Curtain Work Plan. At the time of installation, fabric shall be rejected if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation or storage.

3.5 DAMAGES

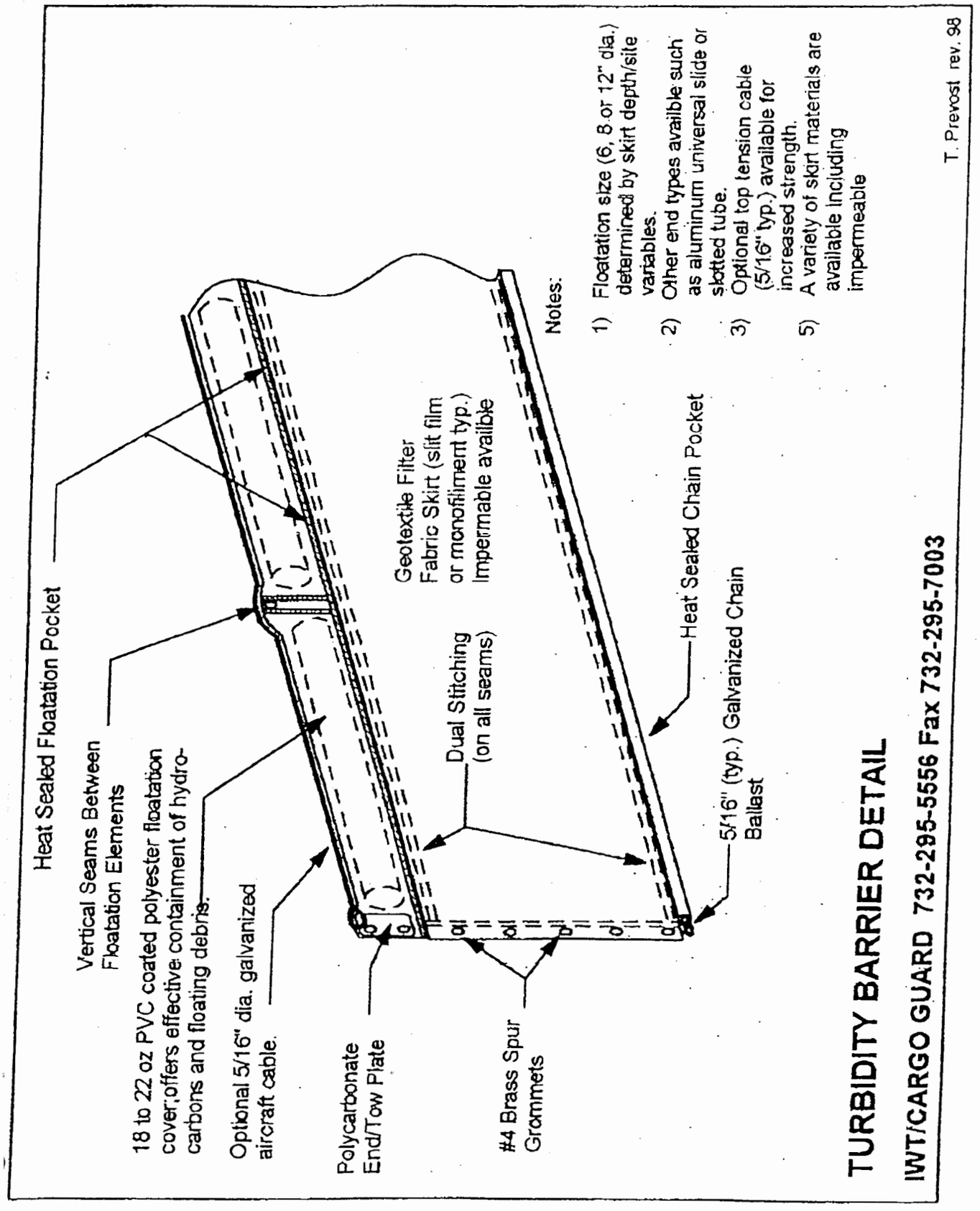
Damaged or defective silt curtain materials shall be replaced or repaired. Chain, cable, flotation blocks, and fasteners shall be replaced if damaged. Geotextile repair shall be made by placing a patch of the same type of geotextile that extends a minimum of 18 inches beyond the edge of the damage or defect. Patches shall be continuously fastened using a sewn seam or other approved methods recommended by the manufacturer. The machine direction of the patch shall be aligned with the machine direction of the geotextile being repaired. Geotextiles that cannot be repaired shall be replaced, at no additional cost.

3.6 DISPOSAL

Upon completion of the construction project, the turbidity curtain shall be stored on-site in the debris area defined on Plans. The Contractor shall dispose of the turbidity curtain in the debris area and make sure that it is stabilized and will not move around due to wind currents.

-- End of Section --

Attachment 02216-01
Sketch of Silt Turbidity Curtain



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SECTION 02220

DEMOLITION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.6	(1990) Safety Requirements for Demolition Operations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

The Contractor shall not start demolition until authorization is received from the Contracting Officer. The work includes demolition, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from and placed on the location as shown on the plans, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Work Plan; G,CS

The work plan shall include procedures to provide a safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection

of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.

Pre-Construction Survey; G,CS

Demolition plan; G,CS

SD-07 Certificates

Notification of Demolition; G,CS

The Contractor shall submit proposed demolition and removal procedures to the Contracting Officer for approval before work is started.

SD-11 Closeout Submittals

Receipts

1.4 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the "Contract Clauses," safety requirements shall conform with ANSI A10.6.

1.5 DUST AND DEBRIS CONTROL

Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.

1.6 PROTECTION

1.6.1 Traffic Control Signs

Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Contracting Officer prior to beginning such work.

1.6.2 Existing Work

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to sheet pile wall system, existing items to remain in place, to be reused, or to remain the property of the Government; any damaged items shall be repaired or replaced as approved by the Contracting Officer. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract. The Contractor shall provide new supports and reinforcement for existing structure weakened by demolition or removal work. Any repairs, reinforcement, or structural replacement must have Contracting Officer approval.

1.6.3 BP Amoco/ARCO Oil Recovery System

The existing BP Amoco/ARCO Oil Recovery System is in operation. The oil recovery system shall remain in place and protected for the duration of this contract. Contractor shall maintain minimum distance of three feet of the ARCO oil recovery pipes and system components. Contractor shall notify the COR of the any damage to the system and repair it as directed by the COR.

1.7 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.8 Demolition Plan

Demolition plan shall include procedures for coordination with other work in progress, a detailed description of methods and equipment to be used for each operation and of the sequence of operations.

1.9 Environmental Protection

The work shall comply with the requirements of SECTION 01355 ENVIRONMENTAL PROTECTION.

1.10 USE OF EXPLOSIVES

Use of explosives will not be permitted.

PART 2 PRODUCTS

2.1 INDOT Coarse Aggregates 53

Backfill for structure shall be INDOT Coarse Aggregates 53. The stone furnished for CA 53 shall conform to Indiana Department of Transportation Standard Specifications section 900 Material Details.

PART 3 EXECUTION

3.1 PRE-CONSTRUCTION SURVEY

The Contractor shall conduct a survey to identify the locations of all underground utilities and obstructions prior to construction. The Contractor shall notify the COR if any utilities and obstructions were discovered during the pre-construction survey that was not identified in this plan. The COR shall decide whether to remove or leave in-place the additional utilities or obstructions. Payment for additional removal shall be agreed on before start of construction.

3.2 EXISTING OBSTRUCTION TO BE REMOVED

Contractor may, with prior approval from the COR, used other methods to remove obstructions. The alternative method of demolition must be submitted with the demolition plan.

3.2.1 Structures

Existing structures indicated on the plan shall be demolished and removed

to one (1) foot below grade. Concrete structure shall be broken and shall be removed to one (1) foot below grade. Pipes within the structures shall be removed as stated in the follow paragraph 3.2.6 Hydrants, Pipes and Valves. Voids within the structures that are equal or larger that 2 feet by 2 feet or 4 square foot area shall be backfilled and compacted as describe in the BACKFILL AND COMPACTION paragraph below. Voids the are smaller shall be backfill but does not need to be compacted until the final lift.

3.2.1.1 Structure # 1 and # 5

The Contractor shall not demolish existing structure # 1 and # 5 and shall protect these structures and associated pipes and valves within the structure through out the construction.

3.2.1.2 Structure # 4

Prior to demolition of existing structure # 4 as indicated on the plans, Contractor shall protect existing fixed/flanged pipes within the structure. Existing fixed/flanged pipes that are damaged during construction shall be repaired before backfilling. Contractor shall remove all loose pipes and debris, other than materials used for backfill as directed by the COR, within the be the structure and transport it to the debris areas as shown on the plans. The COR shall make the final determination of whether pipes are loose and need to be removed or it is fixed and will remain and protected. With prior approval from the COR, debris other then materials used for backfilling may remain during backfilling operations.

Contractor shall plug pipes that convey ground water or other liquid into the structure prior to backfilling.

3.2.2 Fenders and Wall Accessories

Contractor shall remove the fenders and wall accessories along the sheet pile structures in the canal as shown on the plans. During the removal operation, the Contractor shall protect the existing structure from damage and ensure that the removal of fenders and wall accessories will not undermine the sheet pile structure. The contractor shall place fender and wall accessories removed form the sheet pile structure to the debris area as shown on the plans.

3.2.3 Utilities and Related Equipment

The Contractor shall remove existing utilities, as indicated on the plans and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by the Contracting Officer. When utility lines are encountered that are not indicated on the drawings, the Contracting Officer shall be notified prior to further work in that area. Remove meters and related equipment and deliver to a location in accordance with instructions of the Contracting Officer. If utility lines are encountered that are not shown on drawings, contact the Contracting Officer for further instructions.

3.2.4 Slabs and Concrete Pad

Contractor shall break concrete and/or asphalt concrete slabs and concrete pad to a minimum of one (1) foot below below existing adjacent grade.

3.2.5 Concrete Filled Pipes (Bollards/ Mooring Posts)

Existing concrete filled pipes (Bollards/ Mooring Posts) are tiedown, or mooring anchors for ships and are approximately 24 inches in diameter and extends approximately 3 feet above the existing ground line. Contractor shall sawcut the Bollard in a straight lines parallel to the existing ground at a location of not less than 1 foot below existing ground level. The sawcut shall be at a depth of not less than 2 inches into the Bollard. Contractor shall break the Bollard so that no the remaining structure will be at a min of 1 foot below existing ground level. At locations where the broken face cannot be concealed, grind smooth or saw cut entirely through the concrete.

3.2.6 Hydrants, Pipes and Valves

Before demolition, the Contractor shall verify that the hydrants, pipes and valves identified to be removed are no long in service. The Contractor shall contact the COR in the event that there are any active hydrants, pipes or valves. The COR will determine the next action. The Contractor shall remove inactive hydrants, pipes and valves to a depth of one (1) below below existing adjacent grade. Pipes remaining that are perpendicular to the ground shall be plugged three (3) feet below top the the removal and filled with grout.

3.2.7 Filling Pit/Vault

Contractor shall saw cut a 4 feet by 4 feet square section, or as directed by the COR, into the vault at the pit location on structure and backfill with INDOT Coarse Aggregates 53. Backfilling inside the structure shall extend six (6) feet beyond the location of the saw cut. The Contractor shall backfill and compact as described in paragraph 3.3 BACKFILL AND COMPACTION.

3.3 BACKFILL AND COMPACTION

Contractor shall backfill voids created or existing from the one (1) foot demolition and removal of the structures and/or other obstruction. Filling voids shall consist of backfilling with broken concrete, no greater than 2 feet in all dimensions, from demolition and INDOT Coarse Aggregates 53. The Contractor shall compact and work broken concrete and INDOT Coarse Aggregates 53 to minimize voids. The contractor shall backfill to meeting adjacent grade. The final 12 inches shall be INDOT CA 53 and compacted. Broken concrete shall not be used in the final 12 inches. The contractor shall use any vibratory equipment with prior approval from the COR.

3.4 DISPOSITION OF MATERIAL

Contractor shall dispose of pipes, post, hydrants and unused broken concrete and other debris to the debris areas as shown on the plans. No debris shall be taken off site.

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SECTION 02231

CLEARING

PART 1 GENERAL

1.1 SCOPE

The work of this section consists of furnishing all plant, labor, equipment, and materials and performing all operations in connection with the clearing and grubbing of all surface materials and debris. The Contractor shall perform the work in accordance with these specifications unless directed otherwise by the Contracting Officer. Clearing and grubbing debris will be stockpiled and remain on-site. Clearing and grubbing shall be performed within a work limits as shown on the plans from the sheet pile to approximately 205 feet north. Clearing and grubbing in the debris area will not be required.

1.2 DEFINITIONS

1.2.1 Clearing

Clearing shall consist of the removal of brush, trees, other vegetation, and debris; the felling, trimming, and cutting of trees into sections; the satisfactory on-site disposal of trees, other vegetation, and rubbish designated for removal, including downed timber, snags, brush, and concrete occurring within the work limit as shown on the plan except those identified to demolish and paid for on a separate line item; or any area determined by the Contracting Officer. No burning will be allowed on-site.

1.2.2 Satisfactory Materials

Satisfactory materials shall consist of materials classified in accordance with ASTM D-2487 as CL, CL-ML, ML, SC, SP, SW free from roots and other organic matter, contamination from hazardous, toxic, or radiological substances, trash, debris, frozen materials, and stones larger than three (3) inches in any dimension.

1.2.3 Borrow Materials

Earth fill materials required in this Section for construction may be taken from commercial existing borrow/disposal site or quarry or from a contractor-chosen borrow/disposal site or quarry.

1.3 SUBMITTALS

Submit the following in accordance with SECTION 01330, "Submittal Procedures."

SD-03 Product Data

Borrow Area Identification Statement; G,DG

Submit a written statement to the Government no later than 30 days after receipt of Notice to Proceed indicating the borrow area(s) chosen. The Contractor shall include the borrow area address and

name and phone number of the owner or operator of the borrow area.

SD-09 Reports

Sampling Plan for Earth Fill Borrow Sites; G,HE

The Contractor shall submit a sampling plan for environmental testing of the earth fill borrow material before proceeding with sampling.

Analytical Test Results for Earth Fill Borrow Sites; G,HE

Prior to excavating material from the earth fill borrow source, the Contractor, at a minimum, shall submit analytical results for verification of compliance with permits.

Final Report for Earth Fill Borrow Sites; G,HE

The Contractor shall submit the final report of earth fill borrow material sampling and testing.

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver materials to, store at the site, and handle in a manner which will maintain the materials in their original manufactured or fabricated condition until ready for use.

1.5 ENVIRONMENTAL PROTECTION

All work and Contractor operations shall comply with the requirements of SECTION 01355 ENVIRONMENTAL PROTECTION.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.2 Utility Lines

Protect existing utility lines that are indicated to remain from damage. Notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible for the repairs of damage to existing utility lines that are indicated or made known to the Contractor prior to start of clearing and grubbing operations. When utility lines which are to be removed are encountered within the area of operations, the Contractor shall notify the Contracting Officer in ample time to minimize interruption of the service.

3.2 CLEARING

3.2.1 General

Clearing shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the entire work limit area except for debris area. Trees, stumps, roots, brush, and other vegetation in the work limit shall be cut off flush with the original ground surface. The clearing below original ground surface and within three feet of the ARCO oil recovery pipes and system components will not be allowed. See SECTION 02220 DEMOLITION, Paragraph 1.6, PROTECTION for protection of existing structures.

3.2.2 Tree Removal

Trees, all sizes, within the work limit shall be removed from the areas designated for clearing. Trees shall be disposed of as specified in paragraph DISPOSAL OF MATERIALS.

3.2.3 MISCELLANEOUS SURFACE DEBRIS

Contractor shall remove all miscellaneous pipe sections, concrete, bricks, glass, or other miscellaneous surface debris not shown on the plans including concrete block pad that no longer support the BP Amoco/ARCO Oil pipes.

3.3 FILL MATERIAL

Existing depressions shall be filled to be flushed with the surrounding ground with satisfactory material from a commercial existing borrow/disposal site or quarry or from a contractor-chosen borrow/disposal site or quarry. However, use of a contractor-chosen borrow/disposal site or quarry must be approved by the Contracting Officer, and such approval will not be granted unless all applicable requirements have been met and such use of the site does not pose significant environmental impacts. The Contractor shall submit to the Contracting Officer the source or sources from which he intends to obtain materials. If a source is selected other than a commercial source, where the Contractor or his subcontractor shall perform the borrow excavation, a written statement shall be provided to the Contracting Officer indicating permission to utilize the area. It shall be the responsibility of the Contractor to obtain Federal, State, and local permits which may be required for excavation and reclamation of the borrow area. A copy of the plan and procedures to be utilized for reclamation shall be furnished to the Contracting Officer as required in SECTION 01100, paragraph BORROW/DISPOSAL SITE AND QUARRIES.

3.3.1 Environmental Testing of Earth Fill Borrow Materials

Test parameters and Contractor requirements are developed in this section for earth fill materials. These parameters and requirements should be used if a contractor-chosen borrow/disposal site or quarry is used for the construction under this section.

3.3.1.1 Sampling Plan

Prior to excavating material from an contractor-chosen borrow/disposal site or quarry and using material on-site, the Contractor shall submit a Sampling Plan for environmental testing of earth fill material for

Government approval before proceeding with sampling. The Contractor shall address the following, at a minimum, in the Sampling Plan.

a. Location of the material source.

b. Location of samples.

c. Volume of material.

d. Sample collection procedures.

e. Laboratory selected.

f. Laboratory certifications.

g. Parameters analyzed.

h. Analytical methods.

i. Required detection limits.

j. QA/QC requirements.

k. Chain-of-custody procedures.

l. Quality Assurance Project Plan (QAPP).

m. Data validation.

n. Reporting requirements.

If a Phase I or Phase II investigation of the borrow site exists, this information shall be submitted as part of the sampling plan. The Contractor shall submit the name of a qualified consultant laboratory with professional staff who will conduct all sampling, analysis, and reporting. The laboratory selected to perform the laboratory analysis shall have Corps, EPA, or equivalent certifications.

The Contractor, at a minimum, shall test the borrow material for the following parameters: total volatile organic compounds (VOCs), total semi-volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PNAs), total metals, pesticides, polychlorianted biphenyls (PCBs), and TCLP metals using SW-846 methodology and TCLP metals analysis shall include all priority pollutant metals (Arsenic, Antimony, Beryllium, Cadmium, Chromium, Copper, Mercury, Nickel, Silver, Lead, Zinc, and Selenium).

The Contractor shall be aware of the Data Quality Objectives (DQOs) and incorporate these into the Sampling Plan. The DQOs for the soil sampling are to detect contamination and product results that are comparable to the Indiana Department of Environmental Management (IDEM) Risk Integrated System of Closures (RISC) Technical Guide-Appendix 1 (January 1, 2004 update); Table A: Default Closure: Residential Closure Levels.

3.3.1.2 Analytical Results

Soil obtained from an earth fill borrow site will be considered clean if the values obtained by the analysis of all parameters are below the levels described in the IDEM RISC Residential Closure Levels.

3.3.1.3 Final Report

After completing soil sampling and testing of the earth fill borrow source, the Contractor shall prepare and submit a soil sampling report. The report shall consist of, at a minimum:

a. A narrative of information obtained during sampling.

b. Copy of field notes.

c. Identification of sample locations from borrow material.

d. Soil material classification demonstrating all materials meet all requirements of the paragraph 1.2.3 Satisfactory Materials.

e. Copies of chain-of-custody forms.

f. Copies of laboratory data.

g. Table comparing analytical results to IDEM RISC Residential Closure Levels.

h. Discussion of results.

i. Conclusions.

The Contractor is responsible for maintaining accurate records to support information for development of the borrow source.

3.4 DISPOSAL OF MATERIALS

All materials resulting from the clearing and grubbing operations shall be stored on-site in the debris area defined on Plans. Additional storage areas for temporary storage may be used with the approval of the Contracting Officer. At no time will the height of any pile exceed fifteen (15) feet unless approved by the Contracting Officer. The Contractor shall be responsible for compliance with all Federal and State laws and regulations.

3.5 QUALITY CONTROL

3.5.1 Control

The Contractor shall establish and maintain a quality control system for the work under this section to ensure compliance with the contract requirements; and maintain records of his quality control for all construction operations including, but not limited to, 1) clearing and 2) disposal of materials.

3.5.2 Records

A copy of these records, as well as the records of corrective actions taken, shall be furnished to the Government as directed by the Contracting Officer in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL.

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SECTION 02250

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SECTION 02250

SHORING SYSTEM

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1/D1.1M	(2002) Structural Welding Code - Steel

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G, LRP.

Detail drawings for the shoring system shall be submitted as specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

SD-03 Product Data

Work Plan; G, LRP.

The Work Plan within 30 days after notice to proceed. The Contractor shall allow 30 days in the schedule for the Government's review and approval. No adjustment for time or money will be made for resubmittals required as a result of noncompliance.

1.3 WORK PLAN

The Contractor shall develop a work plan for shoring the existing sheet pile wall and excavation and removal of the abandoned pipelines. The drawings present a conceptual design for a reusable shoring system for removal of the abandoned pipes. The Contractor shall design, construct, maintain, install, and remove as part of the work, a reusable shoring

system meeting the requirements of this contract. As a minimum the plan shall include, but not be limited to, fabrication, installation, and removal of the shoring system and any appurtenances. The Work Plan shall be based on work experience and the requirements of this contract. No work at the site, with the exception of site inspections and mobilization, shall be performed until the Work Plan is approved. At a minimum, the Work Plan shall include:

a. Discussion of the fabrication, installation and removal procedures.

b. Safety measures in accordance with EM 385-1-1.

1.4 SHORING SYSTEM

The contract drawings present a conceptual design for a reusable shoring system for removal of the abandoned pipes. The Contractor shall design a reusable shoring system that shall conform to the following:

a. Shall be safe for all work stages and loading conditions in accordance with EM 385-1-1.

b. Shall be designed to prevent ground pressures behind the existing sheet pile wall from exceeding 300 pounds per square foot at any time during the installation of the shoring system, excavation, pipe removal, backfill, or removal of shoring.

c. Shall completely enclose the work area and shall prevent release of suspended sediments outside the work area.

d. Shall be self supporting. The shoring system shall not be dependent upon any other structure, including existing sheet piling, for support. All supporting members shall be removed from the site when the shoring system is removed.

e. Shall not not incorporate components that are intended to be left in place. The entire shoring system shall be removed upon completion of the work for which it is required.

f. Shall be reusable, either as a complete structure or as component parts of a similar structure.

PART 2 PRODUCTS

2.1 MATERIALS

Materials shall conform with the requirements of Section 02464 METAL SHEET PILING and Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Materials that are not specified in these sections shall be suitable for the intended purpose and shall be identified by appropriate industry standards on the shop drawings.

2.2 FABRICATION

2.2.1 Detail Drawings

Detail drawings of shoring system and appurtenant items, including fabrication drawings and field installation drawings, shall conform to the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. The drawings shall include the

following information:

a. Details and dimensions of sheet piling, waler frames, spud piles and support brackets

b. Detail of the method of handling piling to prevent permanent deflection, distortion or damage to piling interlocks

2.2.1.1 Fabrication Drawings

Fabrication drawings shall show complete details of materials, tolerances, connections, and proposed welding sequences which clearly differentiate shop welds and field welds.

2.2.1.2 Field Installation Drawings

Field installation drawings shall provide a detailed description of the field installation procedures. The description shall include the location and method of support of installation and handling equipment; provisions to be taken to protect other work during installation; method of maintaining components in correct alignment; and methods for installing other appurtenant items.

2.2.2 Structural Fabrication

Structural fabrication shall conform with the requirements shown and specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Bolt connections, lugs, clips, or other pick-up assembly devices shall be provided for components as required for proper assembly and installation.

2.2.3 Welding

Welding shall conform with the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Welds shall be in accordance with AWS D1.1/D1.1M.

2.2.4 Bolted Connections

Bolted connections shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.2.5 Painting

Painting of the shoring system is not required.

2.3 TESTS, INSPECTIONS, AND VERIFICATIONS

Tests, inspections, and verifications for materials shall conform to the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, AND MISCELLANEOUS PROVISIONS.

PART 3 EXECUTION

3.1 INSTALLATION AND REMOVAL

Installation and removal shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS and the approved work plan.

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SECTION 02325

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SECTION 02325

DREDGING

PART 1 GENERAL

1.1 SCOPE

Mechanical Dredging shall consist of furnishing all labor, materials, tools, equipment and incidentals necessary to remove the sediment from Lake George Canal in order to remove the pipes in the canal as shown on the drawings. The Contractor shall be required to perform all dredging work utilizing a modified mechanical clamshell bucket that will minimize resuspension during dredging and minimize spillage during transfer to storage facility (barge) and/or roll-off boxes. Contractor shall verify that all lift bridges are in working condition along the canal that is required to access the work area when choosing the storage facility (barge) option.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

STATE SPECIFICATION

INDOT Stnd. Spec.	(1999) Indiana Department of Transportation Standard Specification

1.3 SUBMITTALS

Submit the following in accordance with SECTION 01330, Submittal Procedures.

SD-01 Preconstruction Submittals

Work Plan; G, (CC,TCS and HE)

The Contractor shall submit a work plan that includes Schedule, Dredging, Disposal, Loading, Protection, Spillage and Decontamination Plan. The schedule shall include frequency of dredging and hauling of dredged materials to a Treatment, Storage and Disposal Facility (TSDF). The plan shall include details of the equipments, procedures to follow for the dredging and handling of dredged materials, transferring of dredged materials to storage facility (barge) and/or roll-off boxes, and contacting and coordinating with approved TSDF personnel for the disposal of the dredged materials shall be submitted for Government approval. In addition, this plan must be approved prior to the commencement of dredging and include protection of surrounding structures, equipment, and vessels, and specifically how spillage will be contained during the transfer of dredged material to roll-off boxes and from the decontamination of trucks prior to leaving the site. The Decontamination Plan must be approved by all appropriate local, state and federal agency.

SD-02 Shop Drawings

Bucket; G, (CC,TCS and HE)

Catalog cuts for design and manufacture of modified mechanical clamshell buckets that will minimize resuspension during dredging and minimize spillage during transfer to storage facility (barge) and/or roll-off boxes. Contractor shall provide drawings and description of operations for fabrication of a modified mechanical clamshell buckets.

SD-03 Product Data

Equipment;G, (CC,TCS and HE)

The Contractor shall submit a list of equipments for government approval to be used for the work required under this section.

Roll Off Box or Storage Facility (Barge);G, (CC,TCS and HE)

Contractor shall submit product data of the Roll Off Boxes or Storage Facility (Barge)for government approval. The Roll Off Boxes shall be watertight and completely enclosed once filled.

Trucks for Hauling Roll Off Boxes;G, (CC,TCS and HE)

1.4 MATERIAL TO BE REMOVED

The material to be removed is silt, and other materials. Contractor shall verify material to be removed from the boring logs on the plans.

1.4.1 Hard Material

The Contractor shall remove hard material within the dredging limits. Blasting will not be permitted.

1.5 ARTIFICIAL OBSTRUCTIONS

Except pipes as indicated to be removed, the Government has no knowledge of cables, pipes, or other artificial obstructions or of any wrecks, wreckage, or other material that would necessitate the use of additional equipment for economical removal. If actual conditions differ from those stated or shown, or both, an adjustment in contract price or time for completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

1.6 CHARGES

The Contractor will pay charges imposed by a Transport, Disposal and Storage Facility (TSDF) for disposal of the dredged material.

1.7 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain during the life of the contract, environmental protective measures as outlined in SECTION 01355 ENVIRONMENTAL PROTECTION. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging

operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution.

PART 2 PRODUCTS

2.1 DREDGING BUCKETS

Dredging of material shall be accomplished by mechanical dredging. Hydraulic dredging is not allowed. The Contractor shall dredge all materials under this contract using a modified mechanical clamshell bucket or closed bucket to minimize resuspension during dredging and minimize spillage during transfer to roll-off boxes or barge. The bucket design shall be submitted for Government approval. The bucket must be approved prior to the commencement of dredging.

2.2 DREDGING, DISPOSAL, and LOADING PLAN

The Contractor shall submit in the work plan for Government approval that details the equipment and procedures to be used for dredging, sediment transportation and handling to the loading areas, disposal of sediment into roll-off boxes, and roll-off box loading onto trucks for transportation. The plan shall include, but not be limited to the following.

2.2.1 Equipment and Loading

Diagrams that show the proposed equipment and features at each loading area.

2.2.2 Equipment Data

A detailed list, including bucket specifications and equipment diagrams/plans/photographs, of the type of mechanical dredging equipment proposed.

2.2.3 Characterization of the Sediment

The Corps will provide existing laboratory characterization data of the material in the canal to the Contractor upon request. A summary of characterization data from a recent sediment sampling event is included in SECTION 00200 INFORMATION AVAILABLE TO BIDDERS. The purpose of this sediment sampling event was to collect data for disposal alternatives. The Contractor may have to do additional sampling to provide additional characterization data that may be required for disposal at a Treatment, Storage and Disposal Facility (TSDF) at no additional cost to the government.

2.2.4 Method

Plan shall include list of equipments and methods to be used to transfer dredge material to storage facility and/or roll-off boxes at the loading areas shall include procedures to minimize resuspension during dredging and minimize spillage during transfer of material to loading area and/or roll-off boxes. Contractor will be allowed to drain excess water from bucket back into the canal, prior to transfer, to minimize spillage during rehandling. In addition, the plan shall describe how to clean-up any spillage on land and specifically what methods will be used to contain any spillage during rehandling.

2.3 OTHER EQUIPMENT

Contractor shall provide all other equipment, auxiliary pumping station(s), operators, labor, materials, fuel and incidentals necessary to complete all mobilization, mechanical dredging, and demobilization to complete this project.

2.4 FILL MATERIAL

Backfill for shoring structure shall be INDOT Coarse Aggregates 1. The stone furnished for CA 1 shall conform to Indiana Department of Transportation Standard Specifications Section 900 Material Details and shall be acquired from a commercial/existing borrow/disposal site or quarry.

PART 3 EXECUTION

3.1 INSPECTION

The Contractor shall keep a record of work performed and will require that gages, ranges, and other markers are usable for the intended purpose. The Contractor shall furnish, at the request of the Contracting Officer, boats, boatmen, laborers, and materials necessary for inspecting, supervising, and surveying the work. When required, provide transportation for the Contracting Officer and inspectors to and from the disposal area and between the dredging plant and adjacent points on shore.

3.2 DREDGING

Dredging shall be to the elevation of the pipes as shown on the drawings or field verified elevations. The Contractor shall pay special attention to the limits as shown on the drawings, as the requirements for each area are different. Dredging to a greater depth than is required to remove the designated pipes shown on the drawings will not be permitted. Such dredging may cause damage to existing walls, docks, wharves, under channel pipes and cable-crossings, and other waterfront structures. The Contractor, as directed by the Contracting Officer, shall repair any damage caused by such dredging without additional expense to the Government. Contractor shall exercise extreme caution when dredging and loading of trucks next to structures and shall incur no damage to these structures. Contractor is responsible for any and all damages to structures incurred as a result of the dredging activity.

3.3 CONDUCT OF DREDGING WORK

3.3.1 Order of Work

The Contracting Officer will direct the Contractor on the order of work. The Government reserves the right to change the order of work at any time.

3.3.2 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, pipelines, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.3.3 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

3.3.4 Disposal of Dredged Material

The Contractor shall provide for safe transportation and disposal of dredged materials as stated in SECTION 01355 ENVIRONMENTAL PROTECTION. Contractor shall dispose of dredged material at a Treatment, Storage, and Disposal Facility (TSDF). The deposit of dredged materials in unauthorized places is forbidden. The Contractor must comply with rules and regulations of local port and harbor governing authorities. Additional information on dredged sediment disposal can be found in SECTION 01355 ENVIRONMENTAL PROTECTION.

3.3.5 Safety of Structures

The prosecution of work shall ensure the stability of sheet piles and other structures lying on or adjacent to the site of the work, insofar as structures may be jeopardized by dredging operations. Repair damage resulting from dredging operations, insofar as such damage may be caused by variation in locations or depth of dredging, or both, from that indicated or permitted under the contract.

3.3.6 Plant Removal

Upon completion of the work, promptly remove plant, including ranges, buoys, piles, and other markers or obstructions.

3.4 REMOVAL OF PIPES IN CANAL

Refer to SECTION 02115 REMOVAL AND DISPOSAL OF UNDERGROUND PIPES.

3.5 BACKFILLING IN CANAL

After the pipes in each dredging area have been cut, capped and removed from the canal and the work has been approved, the contractor shall backfill with INDOT Stnd. Spec. Coarse Aggregates 1 within the shoring system to an elevation of 565.0 for shoring system 1 and 2 and an elevation of 556.0 for shoring system 3 before removing the structure.

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SECTION 02464

METAL SHEET PILING

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 6/A 6M	*(2002b)* General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling
ASTM A 328/A 328M	(2000) Steel Sheet Piling
ASTM A 572/A 572M	*(2001)* High-Strength Low-Alloy Columbium-Vanadium Structural Steel

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Pile Driving Equipment; G, CS

Complete descriptions of sheet piling driving equipment including hammers, extractors, protection caps and other installation appurtenances, prior to commencement of work.

SD-06 Test Reports

Materials Tests; G, LRP

Certified materials tests reports. Reports showing that sheet piling and appurtenant metal materials meet the specified requirements shall be submitted for each shipment and identified with specific lots prior to installing materials. Material test reports shall meet the requirements of ASTM A 6/A 6M.

1.3 DELIVERY, STORAGE AND HANDLING

Materials delivered to the site shall be new and undamaged and shall be accompanied by certified test reports. The manufacturer's logo and mill

identification mark shall be provided on the sheet piling as required by the referenced specifications. Sheet piling shall be stored and handled in the manner recommended by the manufacturer to prevent permanent deflection, distortion or damage to the interlocks. Storage of sheet piling should also facilitate required inspection activities.

PART 2 PRODUCTS

2.1 METAL SHEET PILING

Metal sheet piling shall be hot-rolled steel sections conforming to ASTM A 328/A 328M, or ASTM A 572/A 572M, hot-rolled, light-duty steel sections conforming to ASTM A 572/A 572M, Grade 50, or cold-formed steel sections formed from hot-rolled steel meeting the chemical and mechanical requirements of ASTM A 328/A 328M or ASTM A 572/A 572M.

2.1.1 Interlocks

The interlocks of sheet piling shall be free-sliding, provide a swing angle suitable for the intended installation but not less than 5 degrees when interlocked, and maintain continuous interlocking when installed.

2.1.2 General Requirements

Sheet piling, including special fabricated sections, shall be full-length sections of the dimensions required. Fabricated sections shall conform to the requirement and the piling manufacturer's recommendations for fabricated sections. Sheet piling shall be provided with standard pulling holes. Metalwork fabrication for sheet piling shall be as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.2 APPURTENANT METAL MATERIALS

Metal plates, shapes, bolts, nuts, rivets and other appurtenant fabrication and installation materials shall conform to manufacturer's standards and to the requirements specified in the respective sheet piling standards and in Section 05502 METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS.

2.3 TESTS, INSPECTIONS, AND VERIFICATIONS

Requirements for material tests, workmanship and other measures for quality assurance shall be as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

2.3.1 Materials Tests

Materials tests shall conform to the following requirements. Sheet piling and appurtenant materials shall be tested and certified by the manufacturer to meet the specified chemical, mechanical and section property requirements prior to delivery to the site. Testing of sheet piling for mechanical properties shall be performed after the completion of all rolling and forming operations. Testing of sheet piling shall meet the requirements of ASTM A 6/A 6M.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Pile Driving Equipment

Pile driving equipment shall conform to the following requirements.

3.1.1.1 Driving Hammers

Hammers shall be steam, air, or diesel drop, single-acting, double-acting, differential-acting, or vibratory type. The driving energy of the hammers shall be as recommended by the manufacturer for the piling weights and subsurface materials to be encountered.

3.1.2 Placing and Driving

3.1.2.1 Placing

Any excavation required within the area where sheet pilings are to be installed shall be completed prior to placing sheet pilings. Pilings shall be picked up and completely threaded to demonstrate that they slide freely in interlock. Pilings shall be carefully located. Pilings shall be placed plumb with out-of-plumbness not exceeding 1/8 inch per foot of length and true to line. Temporary wales, templates, or guide structures shall be provided to insure that the pilings are placed and driven to the correct alignment. At least two templates shall be used in placing each piling and the maximum spacing of templates shall not exceed 20 feet. Pilings properly placed and driven shall be interlocked throughout their length with adjacent pilings to form a continuous diaphragm throughout the length or run of piling wall.

3.1.2.2 Driving

Prior to driving pilings in water a horizontal line shall be painted on both sides of each piling at a fixed distance from the bottom so that it shall be visible above the water line after installation. This line shall indicate the profile of the bottom elevation of installed pilings and potential problem areas can be identified by abrupt changes in its elevation. Pilings shall be driven with the proper size hammer and by approved methods so as not to subject the pilings to damage and to ensure proper interlocking throughout their lengths.

a. Driving hammers shall be maintained in proper alignment during driving operations by use of leads or guides attached to the hammer.

b. A protecting cap shall be employed in driving when using impact hammers to prevent damage to the tops of pilings. Pilings damaged during driving or driven out of interlock shall be removed and replaced at the Contractor's expense.

c. Pilings shall be driven without the aid of a water jet.

d. Adequate precautions shall be taken to insure that pilings are driven plumb. If at any time the forward or leading edge of the piling wall is found to be out-of-plumb in the plane of the wall the piling being driven shall be driven to the required depth and tapered pilings shall be provided and driven to interlock with the out-of-plumb leading edge or other approved corrective measures shall be taken to insure the

plumbness of succeeding pilings. The maximum permissible taper for any tapered piling shall be 1/8 inch per foot of length.

e. Pilings in each run or continuous length of piling wall shall be driven alternately in increments of depth to the required depth or elevation. No piling shall be driven to a lower elevation than those behind it in the same run except when the pilings behind it cannot be driven deeper. If the piling next to the one being driven tends to follow below final elevation it may be pinned to the next adjacent piling.

f. If obstructions restrict driving a piling to the specified penetration the obstructions shall be removed or penetrated with a chisel beam. If the Contractor demonstrates that removal or penetration is impractical the Contractor shall make changes in the design alignment of the piling structure as directed to insure the adequacy and stability of the structure. Pilings shall be driven to depths shown and shall extend up to the elevation indicated for the top of pilings.

3.1.3 Cutting-Off and Splicing

Pilings driven below the required top elevation and pilings damaged by driving and cut off to permit further driving shall be extended as required to reach the top elevation by splicing when directed at no additional cost to the Government.

a. Pilings adjoining spliced pilings shall be full length unless otherwise approved. Splicing of pilings shall be as approved by the Contracting Officer. Ends of pilings to be spliced shall be squared before splicing to eliminate dips or camber. Pilings shall be spliced together with concentric alignment of the interlocks so that there are no discontinuities, dips or camber at the abutting interlocks. Spliced pilings shall be free sliding and able to obtain the maximum swing with contiguous pilings.

b. The tops of pilings excessively battered during driving shall be trimmed when directed at no cost to the Government. Piling cut-offs shall become the property of the Contractor and shall be removed from the site.

c. The Contractor shall cut holes in pilings for bolts as shown or as required. All cutting shall be done in a neat and workmanlike manner. A straight edge shall be used in cuts made by burning to avoid abrupt nicks. Bolt holes in steel piling shall be drilled or may be burned and reamed by approved methods which will not damage the surrounding metal. Holes other than bolt holes shall be reasonably smooth and the proper size for rods and other items to be inserted.

3.1.4 Inspection of Driven Piling

The Contractor shall inspect the interlocked joints of driven pilings extending above ground. Pilings found to be out of interlock shall be removed and replaced at the Contractor's expense. The Contractor shall use divers to inspect underwater interlocked joints of sheet piling. Government divers may also inspect the interlocked joints. The inspection shall be performed after driving is completed.

3.1.5 Pulling and Redriving

Any piling pulled and found to be damaged to the extent that its usefulness in the structure is impaired shall be removed and replaced at the Contractor's expense. Pilings pulled and found to be in satisfactory condition shall be redriven when directed.

3.2 REMOVAL

The removal of sheet pilings shall consist of pulling, sorting, cleaning the interlocks, inventorying and storing previously installed sheet pilings as shown and directed.

3.2.1 Pulling

The method of pulling piling must be approved. Pulling holes shall be provided in pilings as required. Extractors shall be of suitable type and size. Care shall be exercised during pulling of pilings to avoid damaging piling interlocks and adjacent construction. If the Contracting Officer determines that adjacent permanent construction has been damaged during pulling the Contractor will be required to repair this construction at no cost to the Government. Pilings shall be pulled one sheet at a time. Pilings fused together shall be separated prior to pulling unless the Contractor demonstrates to the satisfaction of the Contracting Officer that the pilings cannot be separated.

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SECTION 05055

METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 325	(2002) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 490	(1993) Heat-Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength
ASTM A 514/A 514M	(1994a) High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
ASTM E 165	(1995) Liquid Penetrant Examination Inspection Method
ASTM E 709	(1995) Magnetic Particle Examination

ASME INTERNATIONAL (ASME)

ASME B4.1	(1967; R 1994) Preferred Limits and Fits for Cylindrical Parts
ASME BPV IX	(1995) Boiler and Pressure Vessel Code; Section IX, Welding and Brazing Qualifications

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1	(1994) Structural Welding Code - Steel
AWS D1.2	(1990) Structural Welding Code - Aluminum

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Welding of Structural Steel; G, CS

Schedules of welding procedures for steel structures shall be submitted and approved prior to commencing fabrication.

SD-06 Test Reports

Tests, Inspections, and Verifications; G, CS

Certified test reports for materials shall be submitted with all materials delivered to the site.

SD-07 Certificates

Qualification of Welders and Welding Operators; G, CS

Certifications for welders and welding operators shall be submitted prior to commencing fabrication.

1.3 DETAIL DRAWINGS

Detail drawings for metalwork shall include catalog cuts, templates, fabrication and assembly details and type, grade and class of material as appropriate. Elements of fabricated items inadvertently omitted on contract drawings shall be detailed by the fabricator and indicated on the detail drawings. Detail drawings shall be submitted as specified in Section 02250 SHORING SYSTEM

1.4 QUALIFICATION OF WELDERS AND WELDING OPERATORS

The Contractor shall certify that the qualification of welders and welding operators and tack welders who will perform structural steel welding have been qualified for the particular type of work to be done in accordance with the requirements of AWS D1.1, Section 5, or ASME BPV IX, Section IX, prior to commencing fabrication. The certificate shall list the qualified welders by name and shall specify the code and procedures under which qualified and the date of qualification. Prior qualification will be accepted if welders have performed satisfactory work under the code for which qualified within the preceding three months. The Contractor shall require welders to repeat the qualifying tests when their work indicates a reasonable doubt as to proficiency. Those passing the requalification tests will be recertified. Those not passing will be disqualified until passing. All expenses in connection with qualification and requalification shall be borne by the Contractor.

PART 2 PRODUCTS

2.1 FABRICATION

2.1.1 Structural Fabrication

Material must be straight before being laid off or worked. If straightening is necessary it shall be done by methods that will not impair the metal. Sharp kinks or bends shall be cause for rejection of the material. Material with welds will not be accepted except where welding is definitely specified, indicated or otherwise approved. Bends shall be made by approved dies, press brakes or bending rolls. Where heating is required, precautions shall be taken to avoid overheating the metal and it

shall be allowed to cool in a manner that will not impair the original properties of the metal. Proposed flame cutting of material other than structural steel shall be subject to approval and shall be indicated on detail drawings. Shearing shall be accurate and all portions of the work shall be neatly finished. Corners shall be square and true unless otherwise shown. Re-entrant cuts shall be filleted to a minimum radius of 3/4 inch unless otherwise approved. Finished members shall be free of twists, bends and open joints. Bolts, nuts and screws shall be tight.

2.1.1.1 Dimensional Tolerances for Structural Work

Dimensions shall be measured by an approved calibrated steel tape of approximately the same temperature as the material being measured. The overall dimensions of an assembled structural unit shall be within the tolerances indicated on the approved detail drawings. An allowable variation of 1/32 inch is permissible in the overall length of component members with both ends milled and component members without milled ends shall not deviate from the dimensions shown by not more than 1/16 inch for members 30 feet or less in length and by more than 1/8 inch for members over 30 feet in length.

2.1.1.2 Structural Steel Fabrication

Structural steel may be cut by mechanically guided or hand-guided torches, provided an accurate profile with a surface that is smooth and free from cracks and notches is obtained. Surfaces and edges to be welded shall be prepared in accordance with AWS D1.1, Subsection 3.2. Where structural steel is not to be welded, chipping or grinding will not be required except as necessary to remove slag and sharp edges of mechanically guided or hand-guided cuts not exposed to view. Hand-guided cuts which are to be exposed or visible shall be chipped, ground or machined to sound metal.

2.1.2 Welding

2.1.2.1 Welding of Structural Steel

a. Welding Procedures for Structural Steel - Welding procedures for structural steel shall be prequalified as described in AWS D1.1, Subsection 5.1 or shall be qualified by tests as prescribed in AWS D1.1, Section 5. Properly documented evidence of compliance with all requirements of these specifications for previous qualification tests shall establish a welding procedure as prequalified. For welding procedures qualified by tests, the test welding and specimen testing must be witnessed and the test report document signed by the Contracting Officer. Approval of any welding procedure will not relieve the Contractor of the responsibility for producing a finished structure meeting all requirements of these specifications. The Contractor will be directed or authorized to make any changes in previously approved welding procedures that are deemed necessary or desirable by the Contractor Officer. The Contractor shall submit a complete schedule of welding procedures for each steel structure to be welded. The schedule shall conform to the requirements specified in the provisions AWS D1.1, Sections 2, 3, 4, 7 and 9 and applicable provisions of Section 10. The schedule shall provide detailed procedure specifications and tables or diagrams showing the procedures to be used for each required joint. Welding procedures must include filler metal, preheat, interpass temperature and stress-relief heat treatment requirements. Each welding procedure shall be clearly identified as being prequalified or required to be qualified by tests.

Welding procedures must show types and locations of welds designated or in the specifications to receive nondestructive examination.

b. Welding Process - Welding of structural steel shall be by an electric arc welding process using a method which excludes the atmosphere from the molten metal and shall conform to the applicable provisions of AWS D1.1, Sections 1 thru 7, 9, 10 and 11. Welding shall be such as to minimize residual stresses, distortion and shrinkage.

c. Welding Technique

(1) Filler Metal - The electrode, electrode-flux combination and grade of weld metal shall conform to the appropriate AWS specification for the base metal and welding process being used or shall be as shown where a specific choice of AWS specification allowables is required. The AWS designation of the electrodes to be used shall be included in the schedule of welding procedures. Only low hydrogen electrodes shall be used for manual shielded metal-arc welding regardless of the thickness of the steel. A controlled temperature storage oven shall be used at the job site as prescribed by AWS D1.1, Subsection 4.5 to maintain low moisture of low hydrogen electrodes.

(2) Preheat and Interpass Temperature - Preheating shall be performed as required by AWS D1.1, Subsection 4.2 and 4.3 or as otherwise specified except that the temperature of the base metal shall be at least 70 degrees F. The weldments to be preheated shall be slowly and uniformly heated by approved means to the prescribed temperature, held at that temperature until the welding is completed and then permitted to cool slowly in still air.

(3) Stress-Relief Heat Treatment - Where stress relief heat treatment is specified or shown, it shall be in accordance with the requirements of AWS D1.1, Subsection 4.4 unless otherwise authorized or directed.

d. Workmanship - Workmanship for welding shall be in accordance with AWS D1.1, Section 3 and other applicable requirements of these specifications.

(1) Preparation of Base Metal - Prior to welding the Contractor shall inspect surfaces to be welded to assure compliance with AWS D1.1, Subsection 3.2.

(2) Temporary Welds - Temporary welds required for fabrication and erection shall be made under the controlled conditions prescribed for permanent work. Temporary welds shall be made using low-hydrogen welding electrodes and by welders qualified for permanent work as specified in these specifications. Preheating for temporary welds shall be as required by AWS D1.1 for permanent welds except that the minimum temperature shall be 120 degrees F in any case. In making temporary welds arcs shall not be struck in other than weld locations. Each temporary weld shall be removed and ground flush with adjacent surfaces after serving its purpose.

(3) Tack Welds - Tacks welds that are to be incorporated into the permanent work shall be subject to the same quality requirements as the permanent welds and shall be cleaned and thoroughly fused

with permanent welds. Preheating shall be performed as specified above for temporary welds. Multiple-pass tack welds shall have cascaded ends. Defective tack welds shall be removed before permanent welding.

2.1.3 Bolted Connections

2.1.3.1 Bolted Structural Steel Connections

Bolts, nuts and washers shall be of the type specified or indicated. All nuts shall be equipped with washers except for high strength bolts. Beveled washers shall be used where bearing faces have a slope of more than 1:20 with respect to a plane normal to the bolt axis. Where the use of high strength bolts is specified or indicated the materials, workmanship and installation shall conform to the applicable provisions of ASTM A 325 or ASTM A 490.

a. Bolt Holes - Bolt holes shall be accurately located, smooth, perpendicular to the member and cylindrical.

(1) Holes for regular bolts shall be drilled or subdrilled and reamed in the shop and shall not be more than 1/16 inch larger than the diameter of the bolt.

(2) Holes for fitted bolts shall be match-reamed or drilled in the shop. Burrs resulting from reaming shall be removed. The threads of bolts shall be entirely outside of the holes. The body diameter of bolts shall have tolerances as recommended by ASME B4.1 for the class of fit specified. Fitted bolts shall be fitted in reamed holes by selective assembly to provide an LN-2 fit.

(3) Holes for high strength bolts shall have diameters of not more than 1/16 inch larger than bolt diameters. If the thickness of the material is not greater than the diameter of the bolts the holes may be punched. If the thickness of the material is greater than the diameter of the bolts the holes may be drilled full size or subpunched or subdrilled at least 1/8 inch smaller than the diameter of the bolts and then reamed to full size. Poor matching of holes will be cause for rejection. Drifting occurring during assembly shall not distort the metal or enlarge the holes. Reaming to a larger diameter of the next standard size bolt will be allowed for slight mismatching.

2.2 TESTS, INSPECTIONS, AND VERIFICATIONS

The Contractor shall have required material tests and analyses performed and certified by an approved laboratory to demonstrate that materials are in conformity with the specifications. These tests and analyses shall be performed and certified at the Contractor's expense. Tests, inspections, and verifications shall conform to the requirements of the particular sections of these specifications for the respective items of work unless otherwise specified or authorized. Tests shall be conducted in the presence of the Contracting Officer if so required. The Contractor shall furnish specimens and samples for additional independent tests and analyses upon request by the Contracting Officer. Specimens and samples shall be properly labeled and prepared for shipment.

2.2.1 Nondestructive Testing

When doubt exists as to the soundness of any material part such part may be subjected to any form of nondestructive testing determined by the Contracting Officer. This may include ultrasonic, magnaflux, dye penetrant, x-ray, gamma ray or any other test that will thoroughly investigate the part in question. The cost of such investigation will be borne by the Government. Any defects will be cause for rejection and rejected parts shall be replaced and retested at the Contractor's expense.

2.2.2 Inspection of Structural Steel Welding

The Contractor shall maintain an approved inspection system and perform required inspections in accordance with Contract Clause CONTRACTOR INSPECTION SYSTEM. Welding shall be subject to inspection to determine conformance with the requirements of AWS D1.1, the approved welding procedures and provisions stated in other sections of these specifications. Nondestructive examination of designated welds will be required. Supplemental examination of any joint or coupon cut from any location in any joint may be required.

2.2.2.1 Visual Examination

All visual examination of completed welds shall be cleaned and carefully examined for insufficient throat or leg sizes, cracks, undercutting, overlap, excessive convexity or reinforcement and other surface defects to ensure compliance with the requirements of AWS D1.1, Section 3 and Section 9, Part D.

2.2.2.2 Nondestructive Examination

The nondestructive examination of shop and field welds shall be performed as designated or described in the sections of these specifications covering the particular items of work.

a. Testing Agency - The nondestructive examination of welds and the evaluation of examination tests as to the acceptability of the welds shall be performed by a testing agency adequately equipped and competent to perform such services or by the Contractor using suitable equipment and qualified personnel. In either case written approval of the examination procedures is required and the examination tests shall be made in the presence of the Contracting Officer. The evaluation of examination tests shall be subject to the approval and all records shall become the property of the Government.

b. Examination Procedures - Examination procedures shall conform to the following requirements.

(1) Ultrasonic Testing - Making, evaluating and reporting ultrasonic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part C. The ultrasonic equipment shall be capable of making a permanent record of the test indications. A record shall be made of each weld tested.

(2) Radiographic Testing - Making, evaluating and reporting radiographic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part B.

(3) Magnetic Particle Inspection - Magnetic particle inspection

of welds shall conform to the applicable provisions of ASTM E 709.

(4) Dye Penetrant Inspection - Dye penetrant inspection of welds shall conform to the applicable provisions of ASTM E 165.

c. Acceptability of Welds - Welds shall be unacceptable if shown to have defects prohibited by AWS D1.1, Subsection 9.25 or possess any degree of incomplete fusion, inadequate penetration or undercutting.

d. Welds to be Subject to Nondestructive Examination

Corner welds of waler frames

2.2.2.3 Test Coupons

The Government reserves the right to require the Contractor to remove coupons from completed work when doubt as to soundness cannot be resolved by nondestructive examination. Should tests of any two coupons cut from the work of any welder show strengths less than that specified for the base metal it will be considered evidence of negligence or incompetence and such welder shall be removed from the work. When coupons are removed from any part of a structure the members cut shall be repaired in a neat manner with joints of the proper type to develop the full strength of the members. Repaired joints shall be peened as approved or directed to relieve residual stress. The expense for removing and testing coupons, repairing cut members and the nondestructive examination of repairs shall be borne by the Government or the Contractor in accordance with the Contract Clauses INSPECTION AND ACCEPTANCE.

2.2.2.4 Supplemental Examination

When the soundness of any weld is suspected of being deficient due to faulty welding or stresses that might occur during shipment or erection the Government reserves the right to perform nondestructive supplemental examinations before final acceptance. The cost of such inspection will be borne by the Government.

2.2.3 Structural Steel Welding Repairs

Defective welds in the structural steel welding repairs shall be repaired in accordance with AWS D1.1, Subsection 3.7. Defective weld metal shall be removed to sound metal by use of air carbon-arc or oxygen gouging. Oxygen gouging shall not be used on ASTM A 514/A 514M steel. The surfaces shall be thoroughly cleaned before welding. Welds that have been repaired shall be retested by the same methods used in the original inspection. Except for the repair of members cut to remove test coupons and found to have acceptable welds costs of repairs and retesting shall be borne by the Contractor.

PART 3 EXECUTION

3.1 INSTALLATION

Bolts and screws shall be tightened firmly and uniformly but care shall be taken not to overstress the threads. When a half nut is used for locking a full nut the half nut shall be placed first and followed by the full nut. Threads of all bolts except high strength bolts, nuts and screws shall be lubricated with an approved lubricant before assembly. Threads of corrosion-resisting steel bolts and nuts shall be coated with an approved

antigalling compound. Driving and drifting bolts or keys will not be permitted.

3.1.1 Alignment and Setting

Each structural unit shall be accurately aligned by the use of steel shims or other approved methods so that no binding in any moving parts or distortion of any member occurs before it is fastened in place.

3.2 TESTS

3.2.1 Workmanship

Workmanship shall be of the highest grade and in accordance with the best modern practices to conform with the specifications for the item of work being furnished.

3.2.2 Production Welding

Production welding shall conform to the requirements of AWS D1.1 or AWS D1.2 as applicable. Studs on which pre-production testing is to be performed shall be welded in the same general position as required on production items (flat, vertical, overhead or sloping). Test and production stud welding will be subjected to visual examination or inspection. If the reduction of the length of studs becomes less than normal as they are welded, welding shall be stopped immediately and not resumed until the cause has been corrected.

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SECTION 05502

METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 36/A 36M	(1996) Carbon Structural Steel
ASTM A 53	(1996) Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM A 307	(1994) Carbon Steel Bolts and Studs, 60 000 psi Tensile Strength
ASTM A 320/A 320M	(1994; R 1995) Alloy Steel Bolting Materials for Low-Temperature Service
ASTM A 325	(2002) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 490	(1993) Heat-Treated Steel Structural Bolts, 150 ksi Minimum Tensile Strength
ASTM A 500	(1993) Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
ASTM A 501	(1993) Hot-Formed Welded and Seamless Carbon Steel Structural Tubing
ASTM A 514/A 514M	(1994a) High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
ASTM A 572/A 572M	(2001) High-Strength Low-Alloy Columbium-Vanadium Structural Steel
ASTM A 588/A 588M	(1994) High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4 in. (100 mm) Thick
ASTM A 618	(1993; R 1995) Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing
ASTM F 436	(1993) Hardened Steel Washers

ASME INTERNATIONAL (ASME)

ASME B18.2.1	(1981; Supple 1991; R 1992) Square and Hex Bolts and Screws (Inch Series)
ASME B18.2.2	(1987; R 1993) Square and Hex Nuts (Inch Series)
ASME B18.21.1	(1994) Lock Washers (Inch Series)
ASME B18.22.1	(1965; R 1990) Plain Washers

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

SD-03 Product Data

Miscellaneous Metals and Standard Metal Articles; G, LRP

Lists of materials shall be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

Records which identify the disposition of approved material and fabricated items in the work must be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

SD-06 Test Reports

Miscellaneous Metals and Standard Metal Articles; G, LRP

Certified test reports for materials tests and analyses shall be submitted for approval as specified and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

1.3 FABRICATION AND WORKMANSHIP REQUIREMENTS

Fabrication requirements and workmanship provisions for items specified in this section shall conform with the requirements of Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

PART 2 PRODUCTS

2.1 MISCELLANEOUS METALS AND STANDARD METAL ARTICLES

Miscellaneous metal materials and standard metal articles shall conform to the respective specifications and other designated requirements. Sizes shall be as specified or shown. Where material requirements are not specified, materials furnished shall be suitable for the intended use and

shall be subject to approval.

2.1.1 Structural Steel

ASTM A 36/A 36M, ASTM A 572/A 572M, or ASTM A 588/A 588M.

2.1.2 Steel Plates

2.1.2.1 Structural

ASTM A 514/A 514M.

2.1.3 Steel Tubing

2.1.3.1 Structural

ASTM A 500, ASTM A 501, or ASTM A 618.

2.1.4 Steel Pipes

ASTM A 53.

2.1.5 Bolts, Nuts, and Washers

Bolts, nuts, and washers shall be of the material, grade, type, class, style and finish indicated or best suited for intended use.

2.1.5.1 High-Strength Bolts, Nuts, and Washers

ASTM A 325, or ASTM A 490.

2.1.5.2 Bolts, Nuts, and Washers (Other Than High-Strength)

a. Bolts and Nuts - ASTM A 307, Grade A, or ASTM A 320/A 320M, Austenitic Steel.

b. Bolts - ASME B18.2.1.

c. Nuts - ASME B18.2.2.

d. Washers

(1) Plain Washers - ASME B18.22.1, Type B.

(2) Lock Washer - ASME B18.21.1.

(3) Beveled Washers - ASTM F 436, Beveled.

PART 3 EXECUTION (Not Applicable)

-- End of Section --