BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

Laubscher Meadows Landfill

2C(1)
Laubscher Meadows LP
Vanderburgh County

January 09, 1997

Mr. John Guerrettaz
Indiana Department of Environmental Management
100 North Senate
Indianapolis, Indiana 46204

Re: ***Semiannual Sampling Event Ground Water Monitoring Results***
Laubscher Meadows Landfill FP 82 - 02

Dear Mr. Guerrettaz:

In accordance with 329 IAC 10-21-7 (a) (2), and FP 82-02 Part F, submitted herewith are the analytical results, statistics, and potentiometric maps for the November 1996 Laubscher Meadows Landfill semiannual sampling event.

In accordance with 329 IAC 10-21-7 (b), BFI hereby notifies the Indiana Department of Environmental Management of a statistically significant increase (SSI). Specifically, there were two (2) exceedences of the prediction limits in the (R) zone, Ammonia was detected at 20.0 mg/l in well MW-4R and Chloride was detected at 48.0 mg/l in well MW-5R. In the (D) zone, Ammonia exceeded the prediction limits in well MW-4D and was detected at 13.0 mg/l. Neither parameter exceeded a ground water protection standard or indicated a significant upward trend following trend analysis. At this time , BFI does not plan to verify the SSI as stated in 329 IA. 10-21-8.

Should you have any questions regarding the foregoing, or require additional information, please feel free to contact me at (812) 242 - 0235 ext. 17.

Sincerely,

Jeff Jenkins
District ESH Manager

SOLID AND HAZARDOUS WASTE MGMT DEM
JAN 13 9 31 AM '97

Enclosures:

cc: Erv Leidolf, BFI
Tim Ralston, BFI
Mark Allendorf, BFI
Barry Wyatt, BFI

All data entered in Access DATABASE

No water level data entered.

Field sheets were not with this info, but field data entered.

G. Jaz 2/5/98

Upgradient

Case Narrative
Shipping and Receiving

The samples A392824-A392833 were intact upon receipt on Nov-13-96. The samples were logged in and distributed to the appropriate groups for the requested testing.

Paula A. Smith

Paula A. Smith
Receiving Supervisor

OFFICE OF SOLID
AND HAZARDOUS
WASTE MGMT
DEM

JAN 13 9 34 AM '97

TO ENSURE PROPER HANDLING OF S[illegible]S PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE ENVIRONMENTAL SERVICES

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

I-35487

Co. Name: BFI
Project Name: [illegible]
Quote No.: PO No.:

ENVIRONMENTAL PROGRAM:
CWA NPDES ____ IWP ____ SLUDGE ____
RCRA MW ✓ SW ____ DISPOSAL ____
SDWA ____ CERCLA/SUPERFUND ____ OTHER ____

Sampled by: [illegible]

Analyses Requested (Note special detection limits or methods)

Report To:
Co: BFI
Add:
[illegible]
Attn: [illegible]
Phone:

Accelerated Turnaround Requested ____ (Subject to Additional Charge)

Result Request by: ____ / ____ / ____ Mo Day Yr
(Date must be Accepted and Approved by Lab)

Sample ID:	Date:	Time:	Comp	Grab	Sample Description	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	Z 126.91	Remarks:	LAB Sample No.
	11/[illegible]/96	0922 AM PM		✓	MW 13D	[illegible]	7	✓		[illegible]
	11/12	0922 AM PM		✓	MW 13D Dup.		7	✓		225
	11/12	1035 AM PM		✓	MW 14D		7	✓		226
	11/12	1130 AM PM		✓	MW 14R		7	✓		227
	11/12	[illegible] AM PM		✓	[illegible]		7	✓		228
	12	1315 AM PM		✓	MW 14R		7	✓		229
	11/12	1320 AM PM		✓	[illegible]		7	✓		[illegible]
	11/12	[illegible] AM PM		✓	[illegible]	DI	7	✓		231
	11/12	[illegible] AM PM		✓	MW 12I	[illegible]	7	✓	#2 [illegible]	[illegible]
	11/12	— AM PM		✓	[illegible]	DI	7	✓	[illegible]	232
		AM PM								
		AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature) [illegible]	Date/Time 11/[illegible]/96 1750	Received for Lab by: (Signature) [illegible]	Date/Time 11/[illegible]/96	Remarks	

Properly Preserved ____
Broken Bottles ____

Distribution: White original and Yellow copy to accompany sample to laboratory.
Pink copy to be retained by client.

Rev. 6/95

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393069
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 11:58	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW2R

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	12.7		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	13.9		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.0	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	4.2		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-12		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	876	1.0	umHOS/cm

 (continued on next page)

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	4.6	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	15	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:33 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.037	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	69.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:33 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	6.1	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	27.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.18	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:28 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.6	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 20-NOV-96 15:00 Test: G4D2.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	470	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	18	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	450	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	450	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:03 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.033	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:20 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	71.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 23-NOV-96 22:54 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393069 MW2R**

Parameter	Result	Det. Limit	Units
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	8	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	121		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	103		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393067
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 10:05	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW3R

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	3.0		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.7		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.2	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	6.0		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-19		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	852	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	1.3	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	8.4	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:27 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.084	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	47.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.19	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:27 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	6.9	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	32.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.89	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:23 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.1	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 20-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	460	10	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393067 MW3R

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	35	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	470	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	470	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 20:50 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.072	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:03 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.19	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:03 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	85.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 15:05 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393067 MW3R

Parameter	Result	Det. Limit	Units
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	12	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	127		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	102		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lausch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393073
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 10:35	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW3R1

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	3.2		umHOS/cm

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.9	0.1	Std. Units

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.5		Degrees C

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	10.5		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-8		mV

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1261	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4

Analyst: K. WHITFIELD Analysis Date: 19-NOV-96 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	17	10	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	49	1.3	mg/L
1:5 dilution			

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	780	10.0	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:36 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:59 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393068
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 10:05	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW3R DUP

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0

Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	1.3	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	8.5	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:30 Instrument: TRACE ICP Test: M103.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.087	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.20	0.010	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	47.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:30 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	7.1	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	32.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.90	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:26 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.1	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 20-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	470	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	32	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	460	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	460	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:00 Instrument: TRACE ICP Test: M103.0.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.080	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393068 MW3R DUP

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:17 Instrument: ICP Test: M109.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	87.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:17 Instrument: ICP Test: M104.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.20	0.010	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 15:49 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	(21)	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	122		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	104		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lausch

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393073 MW3R1

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:22 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 01:11 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	8	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	112		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lowe

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393074
	Complete: 05-DEC-96	PO Number: 021411J009	
	Printed: 06-DEC-96	Sampled: 13-NOV-96 11:04	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW3R2

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	15.3		umHOS/cm

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.0	0.1	Std. Units

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.8		Degrees C

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	6.9		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-9		mV

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1178	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393074 MW3R2**

AMMONIA NITROGEN EPA 350.3
Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4
Analyst: K. WHITFIELD Analysis Date: 19-NOV-96 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	11	10	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056
Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	37	1.3	mg/L

1:5 dilution

DISSOLVED SOLIDS EPA 160.1
Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	660	10.0	mg/L

FIELD FILTRATION SAS
Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A
Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010A
Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:38 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

ARSENIC TRACE ICP SW846-6010A
Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 16:03 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A
Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A393074 MW3R2

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:25 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 01:56 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	9	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	111		% Rec
TOLUENE-D8	100		% Rec
4-BROMOFLUOROBENZENE	114		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Rouch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393078
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	14-NOV-96 09:32	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW4R

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	4.5		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.1		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.7	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	1.4		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	3		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1145	1.0	umHOS/cm

 (continued on next page)

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	20	0.60	mg/L

1:5 dilution.

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	12	0.25	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 25-NOV-96 14:49 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0083	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	45.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:52 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 22-NOV-96 16:17 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	23.	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	28.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.38	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:58 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	2.0	0.20	mg/L

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	550	10.0	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393078 MW4R

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	61	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	580	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	580	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 16:58 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0069	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:43 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	110	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 04:55 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393078 MW4R**

Parameter	Result	Det. Limit	Units
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	107		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49537.

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Approved : Brenda Lowsh

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393079
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	14-NOV-96 10:36	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW4D

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	8.6		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.2		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.8	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	1.1		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	1		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	976	1.0	umHOS/cm

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HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393079 MW4D

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0

Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	13	0.60	mg/L

1:5 dilution.

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	4.8	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:55 Instrument: TRACE ICP Test: M103.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.020	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M131.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	40.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:55 Instrument: TRACE ICP Test: M108.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M110.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 22-NOV-96 16:19 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	21.	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	26.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.20	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:00 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.9	0.20	mg/L

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	470	10.0	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	56	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	510	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	510	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 16:51 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.023	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:45 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	93.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	0.26	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 25-NOV-96 10:24 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393079 MW4D**

Parameter	Result	Det. Limit	Units
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	* 6	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	113		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	94		% Rec

** MeCl2 detected in blank at 7 ug/l.*

Sample Comments

** See Note for Parameter*
BDL Below Detection Limit

Sample chain of custody number 49537.

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Approved : Brenda Lorish

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393071
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 15:24	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW5R

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	19.5		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.6		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.1	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	1.6		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-12		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1033	1.0	umHOS/cm

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393071 MW5R

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	0.52	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	48	1.3	mg/L

1:5 dilution

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:17 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.010	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	110	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:17 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	6.7	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	32.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	1.9	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:09 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	0.90	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	560	10.0	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	32	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	430	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	430	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:09 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.010	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:25 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	57.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	9.7	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 16:33 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393071 MW5R**

Parameter	Result	Det. Limit	Units
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	7	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	100		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393075
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 16:00	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW5R1

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	13.9		umHOS/cm

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.0	0.1	Std. Units

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	16.7		Degrees C

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	7.7	1	mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-11		mV

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1212	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393075 MW5R1

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4

Analyst: K. WHITFIELD Analysis Date: 19-NOV-96 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	17	10	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	42	1.3	mg/L

1:5 dilution

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	750	10.0	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:41 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	0.036	0.025	mg/L

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 16:06 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393075 MW5R1

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:28 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 20:18 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	116		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	101		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393076
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 16:45	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW5R2

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	5.0		umHOS/cm

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.3	0.1	Std. Units

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	16.0		Degrees C

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	3.3		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-21		mV

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	1484	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393076 MW5R2

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4

Analyst: K. WHITFIELD Analysis Date: 19-NOV-96 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	17	10	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	48	1.3	mg/L

1:5 dilution

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	930	10.0	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:43 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	0.025	0.025	mg/L

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 16:09 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393076 MW5R2

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:31 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 03:26 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	6	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	106		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	109		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lough

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393077
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 17:34	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW336

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	1.2		umHOS/cm

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.4	0.1	Std. Units

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.0		Degrees C

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	0.5		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-31		mV

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	920	1.0	umHOS/cm

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	0.25	0.12	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4

Analyst: K. WHITFIELD Analysis Date: 19-NOV-96 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	13	10	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	35	0.25	mg/L

1:5 dilution

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	520	10.0	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: [illegible] Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 22-NOV-96 16:14 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	3.9	0.025	mg/L

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:48 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.044	0.0050	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393077 MW336**

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 16:11 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.040	0.0050	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 21:02 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	7 Lab	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	102		% Rec

Sample reanalyzed with no improvement in internal standard areas.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lorch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393080
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	14-NOV-96 12:13	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW337

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	17.7		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	15.1		Degrees C

FIELD PH (AQUEOUS) SW845-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.4	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	4.5		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-29		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	741	1.0	umHOS/cm

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393080 MW337

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	0.89	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	23	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:12 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.042	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	86.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 15:12 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 22-NOV-96 15:52 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	2.7	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	20.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.33	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 02:29 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.1	0.20	mg/L

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	410	10.0	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	13	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	370	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	370	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 21-NOV-96 09:45 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 22-NOV-96 16:55 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.042	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 22-NOV-96 03:48 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	46.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 20-NOV-96 17:46 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 22:31 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393080 MW337**

Parameter	Result	Det. Limit	Units
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	112		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	104		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49537.

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Approved : Brenda Lovish

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392827
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 11:20	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-10R
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	8.6		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	13.7		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.0	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	2.8		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-5		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	877	1.0	umHOS/cm

 (continued on next page)

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	11	0.60	mg/L

1:5 dilution.

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	16	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:42 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0080	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	59.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.29	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	14.	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	25.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.56	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:43 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.6	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	450	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	28	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	440	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	440	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 20:45 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0078	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:32 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.30	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:32 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	71.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392827 MW-10R

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 10:39 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	7	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	119		% Rec
TOLUENE-D8	92		% Rec
4-BROMOFLUOROBENZENE	99		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392828
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 12:00	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-11R
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	20.8		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	13.0		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.5	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	3.3		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-31		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	764	1.0	umHOS/cm

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392828 MW-11R

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	3.0	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	30	0.5	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.
1:2 dilution

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:45 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.038	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	100	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.21	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	3.3	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	15.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.81	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:45 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.2	0.20	mg/L

prep blank was 0.38 mg/l

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392828 MW-11R

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON | Analysis Date: 14-NOV-96 13:30 | Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	410	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON | Analysis Date: 14-NOV-96 13:00 | Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	13	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	360	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	360	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER | Analysis Date: 19-NOV-96 10:00 | Instrument: PREP | Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. | Analysis Date: 20-NOV-96 20:48 | Instrument: TRACE ICP | Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.045	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 20-NOV-96 00:35 | Instrument: ICP | Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.23	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 20-NOV-96 00:35 | Instrument: ICP | Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	38.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS | Analysis Date: 19-NOV-96 17:40 | Instrument: IC | Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	1.0	0.25	mg/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392828 MW-11R

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP | Analysis Date: 22-NOV-96 11:23 | Instrument: GC/MS VOA | Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	6	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
XYLENES (O/M/P-XYLENE)			
...			
SURROGATE RECOVERY			
---			% Rec
DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	92		% Rec
4-BROMOFLUOROBENZENE	97		

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lusk

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392832
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 16:32	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW 12I
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	10.3		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.5		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.9	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	0.5		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	0		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	704	1.0	umHOS/cm

 (continued on next page)

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	13	0.60	mg/L

1:5 dilution.

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	4.1	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 22:01 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.020	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	25.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.21	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	13.	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	18.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.13	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:52 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.5	0.20	mg/L

prep blank was 0.38 mg/l

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392832 MW 12I

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	340	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	24	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	360	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	360	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 20:26 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.019	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:11 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.23	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:11 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	68.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392832 MW 12I

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 23-NOV-96 22:10 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	7	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	109		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	101		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392830
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 15:20	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-13R
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	8.9		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	12.1		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.0	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	2.3		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-7		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	735	1.0	umHOS/cm

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392830 MW-13R

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	0.15	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	7.5	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:23 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	40.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.11	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

 (continued on next page)

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	0.57	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	33.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	2.0	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:22 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.4	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	400	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	16	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	380	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	380	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:01 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:40 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.12	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:40 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	71.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	13	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 12:53 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392830 MW-13R

Parameter	Result	Det. Limit	Units
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	7	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	125		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	105		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392824
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 09:22	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-13D
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	1.7		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.2		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.5	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	0.1		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-29		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	708	1.0	umHOS/cm

 (continued on next page)

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	1.4	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	27	0.5	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.
1:2 dilution

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:32 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.021	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	92.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.21	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	3.8	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	15.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.057	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:36 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.1	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	400	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	6	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	330	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	330	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 20:35 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.021	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:25 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.20	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:25 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	32.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	0.27	0.25	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392824 MW-13D

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 18-NOV-96 13:55 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	6	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	86		% Rec
4-BROMOFLUOROBENZENE	95		% Rec

SURROGATES FAIL QC CRITERIA, WILL BE REANALYZED.

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 23-NOV-96 20:41 Instrument: GC/MS VOA Test: 0510.6.1

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L

Not Entered

Etoz 2/5/98

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HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392824 MW-13D

Parameter	Result	Det. Limit	Units
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	9	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	115		% Rec
TOLUENE-D8	94		% Rec
4-BROMOFLUOROBENZENE	102		% Rec

ISTD areas fail QC criteria.

Not Entered
G'xxx 8/9/98

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Roush

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392825
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 09:22	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-13D (DUP)
DESCRIPTION: GROUNDWATER

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	1.2	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	27	0.5	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.
1:2 dilution

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:36 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.020	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.21	0.010	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	95.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	0.021	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	3.9	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	16.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.061	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:38 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.0	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	400	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	7	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	330	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	330	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392825 MW-13D (DUP)

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 20:38 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.022	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:28 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	34.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:28 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.21	0.010	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	0.27	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 19:34 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	11	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
XYLENES (O/M/P-XYLENE)			
...			
SURROGATE RECOVERY			

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392825 MW-13D (DUP)

Parameter	Result	Det. Limit	Units
DICHLOROETHANE-D4	118		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	98		% Rec

Sample reanalyzed with no improvement in internal standard areas.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

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Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392829
	Complete: 05-DEC-96	PO Number: 021411J009	
	Printed: 06-DEC-96	Sampled: 12-NOV-96 13:15	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-14R
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN | Analysis Date: | Instrument: FIELD | Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	9.7		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN | Analysis Date: | Instrument: FIELD | Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.4		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN | Analysis Date: | Instrument: FIELD | Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.1	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN | Analysis Date: | Instrument: FIELD | Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	0.5		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN | Analysis Date: | Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-8		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN | Analysis Date: | Instrument: FIELD | Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	810	1.0	umHOS/cm

 (continued on next page)

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392829 MW-14R

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE | Analysis Date: 20-NOV-96 10:30 | Instrument: PREP | Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE | Analysis Date: 20-NOV-96 11:00 | Test: G203.4.0

Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	3.2	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS | Analysis Date: 18-NOV-96 20:24 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	9.7	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . | Analysis Date: | Instrument: FIELD | Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER | Analysis Date: 19-NOV-96 10:00 | Instrument: PREP | Test: P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. | Analysis Date: 20-NOV-96 21:55 | Instrument: TRACE ICP | Test: M103.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 19-NOV-96 23:47 | Instrument: ICP | Test: M131.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	58.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 19-NOV-96 23:47 | Instrument: ICP | Test: M104.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.18	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. | Analysis Date: 20-NOV-96 17:15 | Instrument: TRACE ICP | Test: M108.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392829 MW-14R

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	2.3	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	26.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	1.3	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:47 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.4	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	440	10	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392829 MW-14R

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON | Analysis Date: 14-NOV-96 13:00 | Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	16	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	390	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	390	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER | Analysis Date: 14-NOV-96 11:00 | Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER | Analysis Date: 19-NOV-96 10:00 | Instrument: PREP | Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. | Analysis Date: 20-NOV-96 20:57 | Instrument: TRACE ICP | Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0062	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 20-NOV-96 00:37 | Instrument: ICP | Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.18	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER | Analysis Date: 20-NOV-96 00:37 | Instrument: ICP | Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	69.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS | Analysis Date: 18-NOV-96 20:24 | Instrument: IC | Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	21	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP | Analysis Date: 22-NOV-96 12:08 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L

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HERITAGE ENVIRONMENTAL SERVICES, INC.

Sample ID: A392829 MW-14R

Parameter	Result	Det. Limit	Units
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	10	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
XYLENES (O/M/P-XYLENE)			
...			
SURROGATE RECOVERY			
---			% Rec
DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	102		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

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Approved : Brenda Lewis

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392826
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 10:55	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW-14D
DESCRIPTION: GROUNDWATER

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	12.9		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.5		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.9	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	0.8		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-1		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	891	1.0	umHOS/cm

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AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	7.7	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	23	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0078	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	60.	0.20	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M104.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
BARIUM	0.30	0.010	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	9.2	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	25.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.26	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:40 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.7	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	470	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	22	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	440	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	440	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 20:42 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

BARIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:30 Instrument: ICP Test: M104.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
BARIUM	0.30	0.010	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:30 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	69.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 09:55 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L

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HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392826 MW-14D

Parameter	Result	Det. Limit	Units
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	10	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	131		% Rec
TOLUENE-D8	94		% Rec
4-BROMOFLUOROBENZENE	100		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

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Approved : Brenda Lausch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393070
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 13:34	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: MW15D

GROUNDWATER MONITORING WELL DATA SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
TURBIDITY	5.1		umHOS/cm

FIELD TEMPERATURE EPA 170.1

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G603.0.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.4		Degrees C

FIELD PH (AQUEOUS) SW846-9040A

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.2	0.1	Std. Units

FIELD DISSOLVED OXYGEN SAS

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G600.1.0

Parameter	Result	Det. Limit	Units
DISSOLVED OXYGEN	1.0		mg/L

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED

Analyst: C. WRIN Analysis Date: Test: G604.6.0

Parameter	Result	Det. Limit	Units
OXIDATION/REDUCTION POTENTIAL	-18		mV

ANALYSIS WAS PERFORMED IN THE FIELD

FIELD SPECIFIC CONDUCTANCE SW846-9050

Analyst: C. WRIN Analysis Date: Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	926	1.0	umHOS/cm

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393070 MW15D

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0

Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	1.2	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	24	0.25	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:52 Instrument: TRACE ICP Test: M103.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.056	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M131.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	71.	0.20	mg/L

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:52 Instrument: TRACE ICP Test: M108.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M110.3.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

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COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	10.	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	32.	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.59	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:31 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.2	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	510	10.0	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	24	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	460	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	460	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:06 Instrument: TRACE ICP Test: M103.0.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.049	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:22 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	77.	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 23-NOV-96 23:39 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L

HERITAGE ENVIRONMENTAL SERVICES, INC. **Sample ID: A393070 MW15D**

Parameter	Result	Det. Limit	Units
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	103		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

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Approved : Brenda Lorch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392831
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96 16:20	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: FIELD BLANK Entered as Equip Blank
DESCRIPTION: GROUNDWATER

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	BDL	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:58 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	0.33	0.20	mg/L

prep blank was 0.37 mg/l

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	0.29	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	BDL	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:50 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	BDL	0.20	mg/L

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	BDL	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	BDL	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:04 Instrument: TRACE ICP Test: M103.0.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:42 Instrument: ICP Test: M109.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	BDL	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392831 FIELD BLANK

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 13:37 Instrument: GC/MS VOA Test: 0510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	6	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	118		% Rec
TOLUENE-D8	94		% Rec
4-BROMOFLUOROBENZENE	104		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

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Approved : Brenda Lousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	14-NOV-96		A393072
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	13-NOV-96 15:48	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: FIELD BLANK

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 09:00 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 25-NOV-96 11:30 Test: G203.4.0

Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	BDL	0.25	mg/L

Blank is detectable. Samples with BDL or 10 x the detection limit results were accepted.

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:56 Instrument: TRACE ICP Test: M103.0.1

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0

Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

SODIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	0.76	0.20	mg/L

prep blank was 0.44 mg/l

CADMIUM TRACE ICP SW846-6010A

Analyst: A. ROBERTSON Analysis Date: 21-NOV-96 15:56 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	0.27	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	BDL	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 12:33 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	0.70	0.20	mg/L

prep blank was 0.69 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 19-NOV-96 15:00 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	BDL	10.0	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: C. ROBISON Analysis Date: 19-NOV-96 08:15 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	BDL	1.0	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 20-NOV-96 09:15 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 21-NOV-96 21:12 Instrument: TRACE ICP Test: M103.0.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A393072 FIELD BLANK

CALCIUM ICP SW846-6010A

Analyst: A. HILSCHER Analysis Date: 21-NOV-96 13:27 Instrument: ICP Test: M109.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	BDL	0.20	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 19-NOV-96 17:40 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 24-NOV-96 12:25 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	6	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	111		% Rec

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 49538.

Sample Comments

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Approved : Brenda Rousch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, INC. COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-NOV-96		A392833
	Complete	PO Number	
	05-DEC-96	021411J009	
	Printed	Sampled	
	06-DEC-96	12-NOV-96	

Report To	Bill To
JEFF JENKINS BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720	ALISHA CLARK BFI WASTE SYSTEMS 2211 GLENVIEW DRIVE EVANSVILLE, IN 47720

Sample Description

CLIENT ID: TRIP BLANK
DESCRIPTION: GROUNDWATER

AMMONIA DISTILLATION EPA 350.2

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 10:30 Instrument: PREP Test: P203.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	250		mL

AMMONIA NITROGEN EPA 350.3

Analyst: C. PEREGRINE Analysis Date: 20-NOV-96 11:00 Test: G203.4.0
Prep: AMMONIA DISTILLATION EPA 350.2 P203.4.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	BDL	0.12	mg/L

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	BDL	0.25	mg/L

FIELD FILTRATION SAS

Analyst: . Analysis Date: Instrument: FIELD Test: P110.0.0

FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 22:04 Instrument: TRACE ICP Test: M103.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

 (continued on next page)

SODIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M131.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
SODIUM	0.52	0.20	mg/L

prep blank was 0.37 mg/l

CADMIUM TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 17:15 Instrument: TRACE ICP Test: M108.0.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0010	mg/L

CHROMIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M110.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

COPPER ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M112.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L

ZINC ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M139.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

IRON ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M115.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

MAGNESIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M118.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	BDL	0.20	mg/L

MANGANESE ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M119.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
MANGANESE	BDL	0.010	mg/L

POTASSIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 19-NOV-96 23:54 Instrument: ICP Test: M126.3.1
Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOUS SAMPLES SW846-3005A P132.4.0
Prep: FIELD FILTRATION SAS P110.0.0

Parameter	Result	Det. Limit	Units
POTASSIUM	0.49	0.20	mg/L

prep blank was 0.38 mg/l

DISSOLVED SOLIDS EPA 160.1

Analyst: C. ROBISON Analysis Date: 14-NOV-96 13:30 Test: G402.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	BDL	10	mg/L

TOTAL SUSPENDED SOLIDS EPA 160.2

Analyst: K. MIXON Analysis Date: 14-NOV-96 13:00 Test: G403.7.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	BDL	1	mg/L

ALKALINITY TOTAL EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G605.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (BICARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G610.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	2.0	1.0	mg/L

ALKALINITY (CARBONATE) EPA 310.1

Analyst: K. FULLMER Analysis Date: 14-NOV-96 11:00 Test: G611.2.0

Parameter	Result	Det. Limit	Units
ALKALINITY	BDL	1.0	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Analyst: G. CARTER Analysis Date: 19-NOV-96 10:00 Instrument: PREP Test: P130.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC TRACE ICP SW846-6010A

Analyst: T. NEED, JR. Analysis Date: 20-NOV-96 21:07 Instrument: TRACE ICP Test: M103.0.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0050	mg/L

CALCIUM ICP SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 20-NOV-96 00:44 Instrument: ICP Test: M109.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A P130.4.0

Parameter	Result	Det. Limit	Units
CALCIUM	BDL	0.20	mg/L

HERITAGE ENVIRONMENTAL SERVICES, INC. Sample ID: A392833 TRIP BLANK

SULFATE BY ION CHROMATOGRAPHY SW846-9056

Analyst: M. ADKINS Analysis Date: 18-NOV-96 20:24 Instrument: IC Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	BDL	0.25	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A

Analyst: R. SHAMP Analysis Date: 22-NOV-96 14:21 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
ETHYL BENZENE	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	13	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
VINYL CHLORIDE	BDL	2.0	ug/L
XYLENES (O/M/P-XYLENE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	124		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	103		% Rec

Sample reanalyzed with no improvement in surrogate recovery.

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 35467.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

Approved : Brenda Lausch

Case Narrative
Shipping and Receiving

The samples A393067-A393080 were intact upon receipt on Nov-14-96. The samples were logged in and distributed to the appropriate groups for the requested testing.

Paula A. Smith
Receiving Supervisor

SOLID
AND HAZARDOUS
WASTE MGMT
DEM

JAN 13 9 35 AM '97

TO ENSURE PROPER HANDLING OF SAMPLES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE ENVIRONMENTAL SERVICES

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

I- 49538

Co. Name: BFI LAUBSCHER MEADOWS

Project Name:

Quote No.: PO No.:

ENVIRONMENTAL PROGRAM:

CWA NPDES ____ IWP ____ SLUDGE ____

RCRA MW ✓ SW ____ DISPOSAL ____

SDWA ____ CERCLA/SUPERFUND ____ OTHER ____

Sampled by: Chris Wrin & Steve Askew

Analyses Requested (Note special detection limits or methods)

Report To:
Co: BFI
Add:
Evansville, IN
Attn: Jeff Jenkins
Phone:

Accelerated Turnaround Requested ____ (Subject to Additional Charge)

Result Request by: ____ / ____ / ____ Mo Day Yr

(Date must be Accepted and Approved by Lab)

Client ID:	Date:	Time:	Comp	Grab	Sample Description	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	Z 126591	Z 126597	Remarks:	LAB Sample No.
	11-13-96	1005 AM PM		✓	MW 3R	GW	7	✓			A393067
	11-13	1005 AM PM		✓	MW 3R Dup.	GW	7	✓			068
	11-13	1035 AM PM		✓	MW 3R1		7		✓		073
	11-13	1104 AM PM		✓	MW 3R2		7		✓		074
	11-13	1158 AM PM		✓	MW 2R		7	✓			069
	11-13	1334 AM PM		✓	MW 15 D		7	✓			070
	11-13	1524 AM PM		✓	MW 5R		7	✓			071
	11-13	1548 AM PM		✓	~~MW~~ FIELD BLANK	DI	7	✓			072
	11-13	1600 AM PM		✓	MW 5R1	GW	7		✓		075
	11-13	1645 AM PM		✓	MW 5R2		7		✓		076
	11-13	1734 AM PM		✓	MW 336		7		✓		077
		AM PM									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	

Relinquished by: (Signature)	Date/Time	Received for Lab by: (Signature)	Date/Time	Remarks
[signature]	11-14-96 1630	DC Edwards	11/14/96 1630	

Properly Preserved ____

Broken Bottles ____

Distribution: White original and Yellow copy to accompany sample to laboratory.
Pink copy to be retained by client.

Rev. 6/95

TO ENSURE PROPER HANDLING OF SA[illegible] PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE ENVIRONMENTAL SERVICES

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

I - 49537

Co. Name: BFI
Project Name: LAUDSCHER MEADOWS
Quote No.:
PO No.:

ENVIRONMENTAL PROGRAM:
CWA NPDES ____ IWP ____ SLUDGE ____
RCRA MW / SW ____ DISPOSAL ____
SDWA ____ CERCLA/SUPERFUND ____ OTHER ____

Sampled by: CHRIS WR[illegible] & STEVE ASKEW

Analyses Requested
(Note special detection limits or methods)

Z 126591

Report To:
Co: BFI
Add:
EVANSVILLE, IN
Attn: JEFF SWAGINS
Phone:

Accelerated Turnaround Requested ____
(Subject to Additional Charge)

Result Request by: ___ / ___ / ___
Mo Day Yr
(Date must be Accepted and Approved by Lab)

Client ID:	Date:	Time:	Comp	Grab	Sample Description	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	Remarks:	LAB Sample No.
	11-14-96	0932 AM PM		✓	MW 4R	GW	7		A393078
	11-14	1036 AM PM		✓	MW 4D		7		074
	11-14	1213 AM PM		✓	MW 337	✓	7		080
		AM PM							
		AM PM							
		AM PM							
		AM PM							
		AM PM							
		AM PM							
		AM PM							
		AM PM							
		AM PM							

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date/Time	Received for Lab by: (Signature)	Date/Time	Remarks	
[illegible]	11-14-96 / 1630	[illegible]	11/14/96 / 1630		

Properly Preserved ____
Broken Bottles ____

Distribution: White original and Yellow copy to accompany sample to laboratory.
Pink copy to be retained by client.

Rev. 6/95

QUALITY ASSURANCE REPORT

Service Location
HERITAGE ENVIRONMENTAL SERVICES, INC.
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Report Date
10-DEC-96

Submitter
BFI WASTE SYSTEMS
JEFF JENKINS
2211 GLENVIEW DRIVE
EVANSVILLE, IN 47720

Client ID	Lab ID	Date-Time Sampled	Date Received	Date Complete	Description
MW3R	A393067	13-NOV-96 10:05	14-NOV-96	05-DEC-96	
MW3R DUP	A393068	13-NOV-96 10:05	14-NOV-96	05-DEC-96	
MW2R	A393069	13-NOV-96 11:58	14-NOV-96	05-DEC-96	
MW15D	A393070	13-NOV-96 13:34	14-NOV-96	05-DEC-96	
MW5R	A393071	13-NOV-96 15:24	14-NOV-96	05-DEC-96	
FIELD BLANK	A393072	13-NOV-96 15:48	14-NOV-96	05-DEC-96	
MW3R1	A393073	13-NOV-96 10:35	14-NOV-96	05-DEC-96	
MW3R2	A393074	13-NOV-96 11:04	14-NOV-96	05-DEC-96	
MW5R1	A393075	13-NOV-96 16:00	14-NOV-96	05-DEC-96	
MW5R2	A393076	13-NOV-96 16:45	14-NOV-96	05-DEC-96	
/336	A393077	13-NOV-96 17:34	14-NOV-96	05-DEC-96	
MW4R	A393078	14-NOV-96 09:32	14-NOV-96	05-DEC-96	
MW4D	A393079	14-NOV-96 10:36	14-NOV-96	05-DEC-96	
MW337	A393080	14-NOV-96 12:13	14-NOV-96	05-DEC-96	

HERITAGE ENVIRONMENTAL SERVICES, INC.

AMMONIA NITROGEN EPA 350.3 G203.4

Prep: AMMONIA DISTILLATION EPA 350.2

Run: R307822 Analyst.: C PEREGRINE Run Date...: 25-NOV-96
PREP Reviewer: K FULLMER Review Date: 26-NOV-96

QC Type	Lab ID	Source	Anal Run
BLA02	Q600316		R307818
LFB02	Q600317		R307818
SPI02	Q600320	A392870	R307818
DPS02	Q600321	A392870	R307818
DUP02	Q600322	A392871	R307818
SAMPLE	A393067	Rep: 0	R307818
SAMPLE	A393068	Rep: 0	R307818
SAMPLE	A393069	Rep: 0	R307818
SAMPLE	A393070	Rep: 0	R307818
SAMPLE	A393071	Rep: 0	R307818
SAMPLE	A393072	Rep: 0	R307818
SAMPLE	A393073	Rep: 0	R307818
SAMPLE	A393074	Rep: 0	R307818
SAMPLE	A393075	Rep: 0	R307818
SAMPLE	A393076	Rep: 0	R307818
SAMPLE	A393077	Rep: 0	R307818
SAMPLE	A393078	Rep: 0	R307818
SAMPLE	A393079	Rep: 0	R307818
SAMPLE	A393080	Rep: 0	R307818
BLA02	Q600332		R307818
LFB02	Q600333		R307818
DUP02	Q600335	A393525	R307818
[illegible]02	Q600336	A393124	R307818
DPS02	Q600339	A393124	R307818

Run: R307818 Analyst.: C PEREGRINE Run Date...: 25-NOV-96
ANALYTICAL Reviewer: K FULLMER Review Date: 26-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q600316		NITROGEN, AMMONIA			0.0719	mg/L		
LFB02	Q600317		NITROGEN, AMMONIA	5		4.6	mg/L	92	
ICV01	Q600318		NITROGEN, AMMONIA	1.55		1.49	mg/L	96.1	
CDL01	Q600319		NITROGEN, AMMONIA	0.1		0.0868	mg/L	86.8	
SPI02	Q600320	A392870	NITROGEN, AMMONIA	0	2.5	2.28	mg/L	91.2	
DPS02	Q600321	A392870	NITROGEN, AMMONIA	0	2.5	2.38	mg/L	95.2	4.3
DUP02	Q600322	A392871	NITROGEN, AMMONIA	0		BDL	mg/L		
CCV	Q600323		NITROGEN, AMMONIA	1		0.908	mg/L	90.8	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
CCV	Q600330		NITROGEN, AMMONIA	1		0.871	mg/L	87.1	
BLA01	Q600331		NITROGEN, AMMONIA			0.0397	mg/L		
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
[illegible]MPLE	A393077		See Cert. of Analysis, Rep: 0						
[illegible]MPLE	A393078		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
MPLE	A393080		See Cert. of Analysis, Rep: 0						
BLA02	Q600332		NITROGEN, AMMONIA			0.0404	mg/L		
LFB02	Q600333		NITROGEN, AMMONIA	5		4.79	mg/L	95.8	
CCV	Q600334		NITROGEN, AMMONIA	1		0.946	mg/L	94.6	
DUP02	Q600335	A393525	NITROGEN, AMMONIA	11.4		10.1	mg/L		12.1
SPI02	Q600336	A393124	NITROGEN, AMMONIA	0.185	2.5	2.48	mg/L	91.8	
BLA01	Q600338		NITROGEN, AMMONIA			0.0397	mg/L		
DPS02	Q600339	A393124	NITROGEN, AMMONIA	0.185	2.5	2.58	mg/L	95.8	4.3

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 G301.1

Run: R307189 Analyst.: K WHITFIELD Run Date...: 19-NOV-96
ANALYTICAL Reviewer: K FULLMER Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q596005		CHEMICAL OXYGEN DEMAND			8.54	mg/L		
CDL01	Q596006		CHEMICAL OXYGEN DEMAND	30		41.4	mg/L	138	
ICV01	Q596007		CHEMICAL OXYGEN DEMAND	128		131	mg/L	102.3	
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
DUP01	Q596008	A393073	CHEMICAL OXYGEN DEMAND	17		16	mg/L		6.1
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SPI01	Q596009	A393074	CHEMICAL OXYGEN DEMAND	8.8	50	57.9	mg/L	98.2	
BLA01	Q596010		CHEMICAL OXYGEN DEMAND			8.86	mg/L		
CCV	Q596011		CHEMICAL OXYGEN DEMAND	100		107	mg/L	107	
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
DUP01	Q596012	A393075	CHEMICAL OXYGEN DEMAND	17		18	mg/L		5.7
MPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
BLA01	Q596013		CHEMICAL OXYGEN DEMAND			8.54	mg/L		
CCV	Q596014		CHEMICAL OXYGEN DEMAND	100		101	mg/L	101	
DPS01	Q596016	A393017	CHEMICAL OXYGEN DEMAND	10.4	50	63.3	mg/L	105.8	1.7

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 G310.2

Run: R307200 Analyst.: M ADKINS Run Date...: 18-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q596060		CHLORIDE	12		11.7	mg/L	97.5	
CCV	Q596067		CHLORIDE	12.5		11.6	mg/L	92.8	
BLA01	Q596068		CHLORIDE			< 0.1	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SPI01	Q596077	A393069	CHLORIDE	13.8	2.5	16.3	mg/L	100	
DPS01	Q596078	A393069	CHLORIDE	13.8	2.5	16.3	mg/L	100	0
CCV	Q596079		CHLORIDE	1.25		1.24	mg/L	99.2	
BLA01	Q596081		CHLORIDE			< 0.1	mg/L		

Run: R307559 Analyst.: M ADKINS Run Date...: 20-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 25-NOV-96

BLA01	Q598718		CHLORIDE			< 0.1	mg/L		
CV01	Q598719		CHLORIDE	12		11.5	mg/L	95.8	
AMPLE	A393071		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
IPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SPI01	Q598720	A393075	CHLORIDE	37.8	12.5	49.9	mg/L	96.8	
DPS01	Q598721	A393075	CHLORIDE	37.8	12.5	49.2	mg/L	91.2	6
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
CCV	Q598727		CHLORIDE	12.5		11.4	mg/L	91.2	
BLA01	Q598728		CHLORIDE			< 0.1	mg/L		

Run: R307560 Analyst.: M ADKINS Run Date...: 19-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

ICV01	Q598730		CHLORIDE	12		11.7	mg/L	97.5	
CCV	Q598747		CHLORIDE	12.5		11.5	mg/L	92	
BLA01	Q598748		CHLORIDE			< 0.1	mg/L		
SPI01	Q598749	A392825	CHLORIDE	24.7	5	29.6	mg/L	98	
DPS01	Q598750	A392825	CHLORIDE	24.7	5	29.6	mg/L	98	0
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
CCV	Q598751		CHLORIDE	1.25		1.22	mg/L	97.6	
CCV	Q598752		CHLORIDE	12.5		11.5	mg/L	92	
BLA01	Q598755		CHLORIDE			0.262	mg/L		
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
CCV	Q598757		CHLORIDE	1.25		1.24	mg/L	99.2	
BLA01	Q598759		CHLORIDE			< 0.1	mg/L		

SULFATE BY ION CHROMATOGRAPHY SW846-9056 G310.7

Run: R307200 Analyst.: M ADKINS Run Date...: 18-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q596060		SULFATE	20		18.2	mg/L	91	
CCV	Q596067		SULFATE	25		23.4	mg/L	93.6	
BLA01	Q596068		SULFATE			< 0.1	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SPI01	Q596077	A393069	SULFATE	0	5	5.51	mg/L	110.2	
DPS01	Q596078	A393069	SULFATE	0	5	5.53	mg/L	110.6	.4
CCV	Q596079		SULFATE	2.5		2.43	mg/L	97.2	
BLA01	Q596081		SULFATE			< 0.1	mg/L		

Run: R307559 Analyst.: M ADKINS Run Date...: 20-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 25-NOV-96

BLA01	Q598718		SULFATE			< 0.1	mg/L		
ICV01	Q598719		SULFATE	20		18	mg/L	90	
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
CCV	Q598726		SULFATE	2.5		2.44	mg/L	97.6	
BLA01	Q598728		SULFATE			< 0.1	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307560 Analyst.: M ADKINS Run Date...: 19-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q598730		SULFATE	20		18.2	mg/L	91	
SPI01	Q598743	A393453	SULFATE	54.8	10	65.3	mg/L	105	
DPS01	Q598744	A393453	SULFATE	54.8	10	65.5	mg/L	107	1.9
CCV	Q598747		SULFATE	25		23.3	mg/L	93.2	
BLA01	Q598748		SULFATE			< 0.1	mg/L		
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
CCV	Q598751		SULFATE	2.5		2.38	mg/L	95.2	
CCV	Q598752		SULFATE	25		23.2	mg/L	92.8	
BLA01	Q598755		SULFATE			< 0.1	mg/L		
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
CCV	Q598757		SULFATE	2.5		2.43	mg/L	97.2	
BLA01	Q598759		SULFATE			< 0.1	mg/L		

DISSOLVED SOLIDS EPA 160.1 G402.7

Run: R307715 Analyst.: C ROBISON Run Date...: 19-NOV-96
ANALYTICAL Reviewer: K FULLMER Review Date: 25-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q599766		SOLIDS			4	mg/L		
LCS01	Q599767		SOLIDS	811		813	mg/L	100.2	
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
DUP01	Q599768	A393071	SOLIDS	560		560	mg/L		0
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
SPI01	Q599769	A393016	SOLIDS	185	250	429	mg/L	97.6	
DPS01	Q599770	A393016	SOLIDS	185	250	452	mg/L	106.8	9
SPI01	Q599771	A393017	SOLIDS	235	250	484	mg/L	99.6	
DPS01	Q599772	A393017	SOLIDS	235	250	470	mg/L	94	5.8
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
LCS01	Q599773		SOLIDS	811		823	mg/L	101.5	
BLA01	Q599774		SOLIDS			7	mg/L		

Run: R307756 Analyst.: C ROBISON Run Date...: 20-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 25-NOV-96

BLA01	Q600101		SOLIDS			-39	mg/L		
LCS01	Q600102		SOLIDS	811		816	mg/L	100.6	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SPI01	Q600103	A393124	SOLIDS	235	250	474	mg/L	95.6	
DUP01	Q600104	A393300	SOLIDS	690		700	mg/L		1.4

HERITAGE ENVIRONMENTAL SERVICES, INC.

TOTAL SUSPENDED SOLIDS EPA 160.2 — G403.7

Run: R307337 Analyst.: C ROBISON Run Date...: 19-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q597195		SUSPENDED SOLIDS			-1	mg/L		
LCS01	Q597196		SUSPENDED SOLIDS	441		445	mg/L	100.9	
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
DUP01	Q597197	A393071	SUSPENDED SOLIDS	32		29	mg/L		9.8
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
DUP01	Q597198	A393070	SUSPENDED SOLIDS	24		21	mg/L		13.3
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
DUP01	Q597199	A393078	SUSPENDED SOLIDS	61		61	mg/L		0
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
DUP01	Q597200	A393079	SUSPENDED SOLIDS	56		56	mg/L		0
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
SPI01	Q597201	A393080	SUSPENDED SOLIDS	6.5	220.5	226	mg/L	99.5	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
LCS01	Q597205		SUSPENDED SOLIDS	441		444	mg/L	100.7	
BLA01	Q597206		SUSPENDED SOLIDS			0	mg/L		

GROUNDWATER MONITORING WELL DATA SAS — G600.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

FIELD TEMPERATURE EPA 170.1 — G603.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
IPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

FIELD SPECIFIC CONDUCTANCE SW846-9050 G604.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED G604.6

Run: R307017 Analyst.: C WRIN Run Date...: 12-NOV-96
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

ALKALINITY TOTAL EPA 310.1 G605.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
V	Q594799		ALKALINITY	125		120	mg/L	96	
P01	Q594800	A393067	ALKALINITY	470		460	mg/L		2.2

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
CCV	Q594801		ALKALINITY	125		120	mg/L	96	
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
CCV	Q594802		ALKALINITY	125		120	mg/L	96	
DUP01	Q594803	A392824	ALKALINITY	330		340	mg/L		3
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
DUP01	Q594805	A393067	ALKALINITY	470		460	mg/L		2.2

FIELD PH (AQUEOUS) SW846-9040A — G607.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

ALKALINITY (BICARBONATE) EPA 310.1 — G610.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
CCV	Q594799		ALKALINITY	125		120	mg/L	96	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
DUP01	Q594800	A393067	ALKALINITY	470		460	mg/L		2.2
CCV	Q594801		ALKALINITY	125		120	mg/L	96	
CCV	Q594802		ALKALINITY	125		120	mg/L	96	
DUP01	Q594805	A393067	ALKALINITY	470		460	mg/L		2.2
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

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ALKALINITY (CARBONATE) EPA 310.1 G611.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
CCV	Q594802		ALKALINITY	125		120	mg/L	96	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
DUP01	Q594809	A393067	ALKALINITY	0		BDL	mg/L		
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						

ARSENIC TRACE ICP SW846-6010A M103.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306579 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591987	SPEX	R307376
BLA02	Q591988	NA	R307376
DPS02	Q591990	A393077	R307376
SAMPLE	A393077	Rep: 0	R307568
SAMPLE	A393078	Rep: 0	R307568
SAMPLE	A393079	Rep: 0	R307568
SAMPLE	A393080	Rep: 0	R307568
LCS	Q591992	INORGAN	R307568
BLA02	Q591993	NA	R307568
SPI02	Q591994	A393077	R307568
DPS02	Q591995	A393077	R307568

Run: R306598 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592160	SPEX	R307356
BLA02	Q592161	NA	R307356
SPI02	Q592162	A393067	R307356
DPS02	Q592163	A393067	R307356
SAMPLE	A393067	Rep: 0	R307406
SAMPLE	A393068	Rep: 0	R307406
SAMPLE	A393069	Rep: 0	R307406
SAMPLE	A393070	Rep: 0	R307406
SAMPLE	A393071	Rep: 0	R307406
SAMPLE	A393072	Rep: 0	R307406
SAMPLE	A393073	Rep: 0	R307406
SAMPLE	A393074	Rep: 0	R307406
SAMPLE	A393075	Rep: 0	R307406
SAMPLE	A393076	Rep: 0	R307406
LCS	Q592165	INORGAN	R307406
BLA02	Q592166	NA	R307406
SPI02	Q592167	A393067	R307406

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
DPS02	Q592168	A393067	R307406

rep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

LCS	Q591997	SPEX	R307509
BLA02	Q591998	NA	R307509
SPI02	Q591999	A393080	R307509
DPS02	Q592000	A393080	R307509
SAMPLE	A393077	Rep: 1	R307568
SAMPLE	A393078	Rep: 1	R307690
SAMPLE	A393079	Rep: 1	R307568
SAMPLE	A393080	Rep: 1	R307568
LCS	Q592002	INORGAN	R307568
BLA02	Q592003	NA	R307568

Q592004 SPI02 > see attached PKS 10-Dec-96
Q592005 DPS02

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307396
SAMPLE	A393068	Rep: 1	R307396
SAMPLE	A393069	Rep: 1	R307396
SAMPLE	A393070	Rep: 1	R307396
SAMPLE	A393071	Rep: 1	R307396
SAMPLE	A393072	Rep: 1	R307396
IPLE	A393073	Rep: 1	R307396
SAMPLE	A393074	Rep: 1	R307396
SAMPLE	A393075	Rep: 1	R307396
SAMPLE	A393076	Rep: 1	R307396
LCS	Q592178	INORGAN	R307396
BLA02	Q592179	NA	R307396
SPI02	Q592180	A393071	R307396
DPS02	Q592181	A393071	R307396

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q592161	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q592160	SPEX	ARSENIC	20		18.3	mg/L	92	
SPI02	Q592162	A393067	ARSENIC	0	2	1.92	mg/L	96	
DPS02	Q592163	A393067	ARSENIC	0	2	1.97	mg/L	99	3

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

BLA02	Q591988	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q591987	SPEX	ARSENIC	20		17.8	mg/L	89	
DPS02	Q591990	A393077	ARSENIC	0	2	1.88	mg/L	94	2

Run: R307406 Analyst.: T NEED, JR. Run Date...: 21-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 22-NOV-96

ICV01	Q597748	PERKIN-	ARSENIC	0.04		0.0410	mg/L	103	
CCV01	Q597749	PERKIN-	ARSENIC	0.04		0.0429	mg/L	107	
LCS01	Q597753	INORGAN	ARSENIC	0.5		0.498	mg/L	100	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q597755	INORGAN	ARSENIC	0.1		0.104	mg/L	104	
BLA01	Q597756	NA	ARSENIC			< 0.00200	mg/L		
LCS	Q592165	INORGAN	ARSENIC	0.5		0.462	mg/L	92	
BLA02	Q592166	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SPI02	Q592167	A393067	ARSENIC	0.0726	2	2.03	mg/L	98	
DPS02	Q592168	A393067	ARSENIC	0.0726	2	1.85	mg/L	89	10
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
CCV	Q597757	INORGAN	ARSENIC	0.1		0.101	mg/L	101	
BLA01	Q597758	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
CCV	Q597759	INORGAN	ARSENIC	0.1		0.0998	mg/L	100	
BLA01	Q597760	NA	ARSENIC			0.00358	mg/L		
CDL01	Q597767	PERKIN-	ARSENIC	0.02		0.0238	mg/L	119	

Run: R307568 Analyst.: A ROBERTSON Run Date...: 22-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 25-NOV-96

ICV01	Q598827	PERKIN-	ARSENIC	0.04		0.0433	mg/L	108	
CDL01	Q598831	INORGAN	ARSENIC	0.5		0.488	mg/L	98	
CCV	Q598838	INORGAN	ARSENIC	0.1		0.0945	mg/L	95	
BLA01	Q598839	NA	ARSENIC			0.00218	mg/L		
LCS	Q591992	INORGAN	ARSENIC	0.5		0.458	mg/L	92	
BLA02	Q591993	NA	ARSENIC			0.00275	mg/L		
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SPI02	Q591994	A393077	ARSENIC	0.0399	2	1.79	mg/L	88	
DPS02	Q591995	A393077	ARSENIC	0.0399	2	1.80	mg/L	88	15
CCV	Q598840	INORGAN	ARSENIC	0.1		0.0959	mg/L	96	
BLA01	Q598841	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
CCV	Q598842	INORGAN	ARSENIC	0.1		0.0973	mg/L	97	
BLA01	Q598843	NA	ARSENIC			0.00247	mg/L		
CDL01	Q598846	PERKIN-	ARSENIC	0.02		0.0226	mg/L	113	

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

BLA02	Q592174	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q592173	SPEX	ARSENIC	20		19.0	mg/L	95	
SPI02	Q592175	A393071	ARSENIC	0	2	1.95	mg/L	98	
DPS02	Q592176	A393071	ARSENIC	0	2	1.97	mg/L	99	1

Run: R307396 Analyst.: A ROBERTSON Run Date...: 21-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 22-NOV-96

ICV01	Q597661	PERKIN-	ARSENIC	0.04		0.0435	mg/L	109	
CDL01	Q597665	INORGAN	ARSENIC	0.5		0.498	mg/L	100	
CCV	Q597677	INORGAN	ARSENIC	0.1		0.0982	mg/L	98	
BLA01	Q597678	NA	ARSENIC			< 0.00200	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS	Q592178	INORGAN	ARSENIC	0.5		0.455	mg/L	91	
\02	Q592179	NA	ARSENIC			0.00347	mg/L		
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592180	A393071	ARSENIC	0.0105	2	2.17	mg/L	108	
DPS02	Q592181	A393071	ARSENIC	0.0105	2	2.04	mg/L	102	6
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597679	INORGAN	ARSENIC	0.1		0.0966	mg/L	97	
BLA01	Q597680	NA	ARSENIC			0.00270	mg/L		
SAMPLE	A393073		See Cert. of Analysis, Rep: 1						
SAMPLE	A393074		See Cert. of Analysis, Rep: 1						
SAMPLE	A393075		See Cert. of Analysis, Rep: 1						
SAMPLE	A393076		See Cert. of Analysis, Rep: 1						
CCV	Q597681	INORGAN	ARSENIC	0.1		0.0984	mg/L	98	
BLA01	Q597682	NA	ARSENIC			< 0.00200	mg/L		
CDL01	Q597683	PERKIN-	ARSENIC	0.02		0.0199	mg/L	100	

Run: R307509 Analyst.: A HILSCHER Run Date...: 22-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 25-NOV-96

BLA02	Q591998	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q591997	SPEX	ARSENIC	20		18.1	mg/L	91	
SPI02	Q591999	A393080	ARSENIC	0	2	1.92	mg/L	96	
DPS02	Q592000	A393080	ARSENIC	0	2	1.91	mg/L	96	1

Run: R307568 Analyst.: A ROBERTSON Run Date...: 22-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 25-NOV-96

\V01	Q598827	PERKIN-	ARSENIC	0.04		0.0433	mg/L	108	
CDL01	Q598831	INORGAN	ARSENIC	0.5		0.488	mg/L	98	
CCV	Q598834	INORGAN	ARSENIC	0.1		0.0921	mg/L	92	
BLA01	Q598835	NA	ARSENIC			< 0.00200	mg/L		
LCS	Q592002	INORGAN	ARSENIC	0.5		0.452	mg/L	90	
BLA02	Q592003	NA	ARSENIC			0.00375	mg/L		
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
CCV	Q598836	INORGAN	ARSENIC	0.1		0.0946	mg/L	95	
BLA01	Q598837	NA	ARSENIC			0.00309	mg/L		
SAMPLE	A393077		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q598838	INORGAN	ARSENIC	0.1		0.0945	mg/L	95	
BLA01	Q598839	NA	ARSENIC			0.00218	mg/L		
CDL01	Q598846	PERKIN-	ARSENIC	0.02		0.0226	mg/L	113	

Run: R307690 Analyst.: A ROBERTSON Run Date...: 25-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 26-NOV-96

ICV01	Q599545	PERKIN-	ARSENIC	0.04		0.0423	mg/L	106	
ICV01	Q599563	PERKIN-	ARSENIC	0.04		0.0411	mg/L	103	
CDL01	Q599567	INORGAN	ARSENIC	0.5		0.510	mg/L	102	
CCV	Q599569	INORGAN	ARSENIC	0.1		0.101	mg/L	101	
BLA01	Q599570	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
CCV	Q599571	INORGAN	ARSENIC	0.1		0.103	mg/L	103	
BLA01	Q599572	NA	ARSENIC			< 0.00200	mg/L		
CDL01	Q599581	PERKIN-	ARSENIC	0.02		0.0226	mg/L	113	

HERITAGE ENVIRONMENTAL SERVICES, INC.

BARIUM ICP SW846-6010A M104.3

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306598 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592160	SPEX	R307356
BLA02	Q592161	NA	R307356
SPI02	Q592162	A393067	R307356
DPS02	Q592163	A393067	R307356
SAMPLE	A393067	Rep: 0	R307356
SAMPLE	A393068	Rep: 0	R307356

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597319	PERKIN	BARIUM	2.00		2.07	mg/L	104	
CDL01	Q597323	INORGAN	BARIUM	10		10.1	mg/L	101	
ICS-A	Q597328	PERKIN	BARIUM	0.500		0.475	mg/L	95	
CCV	Q597333	INORGAN	BARIUM	5.00		5.02	mg/L	100	
BLA01	Q597334	NA	BARIUM			< 0.00400	mg/L		
BLA02	Q592161	NA	BARIUM			< 0.00400	mg/L		
LCS	Q592160	SPEX	BARIUM	20.0		19.0	mg/L	95	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SPI02	Q592162	A393067	BARIUM	0.194	2.00	2.08	mg/L	94	
DPS02	Q592163	A393067	BARIUM	0.194	2.00	2.11	mg/L	96	2
CCV	Q597335	INORGAN	BARIUM	5.00		4.96	mg/L	99	
BLA01	Q597336	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
CCV	Q597337	INORGAN	BARIUM	5.00		5.06	mg/L	101	
BLA01	Q597338	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q597340	PERKIN	BARIUM	0.500		0.475	mg/L	95	

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

ICV01	Q597319	PERKIN	BARIUM	2.00		2.07	mg/L	104	
CDL01	Q597323	INORGAN	BARIUM	10		10.1	mg/L	101	
ICS-A	Q597328	PERKIN	BARIUM	0.500		0.475	mg/L	95	
BLA02	Q592174	NA	BARIUM			< 0.00400	mg/L		
LCS	Q592173	SPEX	BARIUM	20.0		19.5	mg/L	98	
SPI02	Q592175	A393071	BARIUM	0.159	2	2.14	mg/L	99	
DPS02	Q592176	A393071	BARIUM	0.159	2	2.14	mg/L	99	0
CCV	Q597331	INORGAN	BARIUM	5.00		5.08	mg/L	102	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q597332	NA	BARIUM			< 0.00400	mg/L		
4PLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	BARIUM	5.00		5.02	mg/L	100	
BLA01	Q597334	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q597340	PERKIN	BARIUM	0.500		0.475	mg/L	95	

CADMIUM TRACE ICP SW846-6010A M108.0

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307509
BLA02	Q591998	NA	R307509
SPI02	Q591999	A393080	R307509
DPS02	Q592000	A393080	R307509
SAMPLE	A393078	Rep: 1	R307568
SAMPLE	A393079	Rep: 1	R307568
SAMPLE	A393080	Rep: 1	R307568
LCS	Q592002	INORGAN	R307568
BLA02	Q592003	NA	R307568

Q592004 SPIØ2 > see attached
Q592005 DPSØ2 PKS 10-Dec-96

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307396
SAMPLE	A393068	Rep: 1	R307396
SAMPLE	A393069	Rep: 1	R307396
SAMPLE	A393070	Rep: 1	R307396
SAMPLE	A393071	Rep: 1	R307396
SAMPLE	A393072	Rep: 1	R307396
LCS	Q592178	INORGAN	R307396
BLA02	Q592179	NA	R307396
SPI02	Q592180	A393071	R307396

Q592181 DPSØ2 - see attached PKS 10-Dec-96

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q592174	NA	CADMIUM			< 0.00200	mg/L		
LCS	Q592173	SPEX	CADMIUM	0.500		0.479	mg/L	96	
SPI02	Q592175	A393071	CADMIUM	0	0.050	0.0494	mg/L	99	
DPS02	Q592176	A393071	CADMIUM	0	0.050	0.0481	mg/L	96	3

Run: R307396 Analyst.: A ROBERTSON Run Date...: 21-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 22-NOV-96

ICV01	Q597661	PERKIN-	CADMIUM	0.04		0.0408	mg/L	102	
CDL01	Q597665	INORGAN	CADMIUM	0.5		0.492	mg/L	98	
ICS-A	Q597666	PERKIN	CADMIUM	1		0.903	mg/L	90	
CCV	Q597677	INORGAN	CADMIUM	0.1		0.0954	mg/L	95	
BLA01	Q597678	NA	CADMIUM			< 0.000400	mg/L		
CS	Q592178	INORGAN	CADMIUM	0.5		0.451	mg/L	90	
LA02	Q592179	NA	CADMIUM			< 0.000400	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
02	Q592180	A393071	CADMIUM	0	0.05	0.0500	mg/L	100	
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597679	INORGAN	CADMIUM	0.1		0.0952	mg/L	95	
BLA01	Q597680	NA	CADMIUM			< 0.000400	mg/L		
CDL01	Q597683	PERKIN-	CADMIUM	0.01		0.0103	mg/L	103	
ICS-A	Q597684	PERKIN	CADMIUM	1		0.944	mg/L	94	

Run: R307509 Analyst.: A HILSCHER Run Date...: 22-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 25-NOV-96

BLA02	Q591998	NA	CADMIUM			< 0.00200	mg/L		
LCS	Q591997	SPEX	CADMIUM	0.500		0.449	mg/L	90	
SP102	Q591999	A393080	CADMIUM	0	0.050	0.0450	mg/L	90	
DPS02	Q592000	A393080	CADMIUM	0	0.050	0.0482	mg/L	96	7

Run: R307568 Analyst.: A ROBERTSON Run Date...: 22-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 25-NOV-96

ICV01	Q598827	PERKIN-	CADMIUM	0.04		0.0403	mg/L	101	
CDL01	Q598831	INORGAN	CADMIUM	0.5		0.485	mg/L	97	
ICS-A	Q598832	PERKIN	CADMIUM	1		1.06	mg/L	106	
CCV	Q598834	INORGAN	CADMIUM	0.1		0.0924	mg/L	92	
BLA01	Q598835	NA	CADMIUM			< 0.000400	mg/L		
LCS	Q592002	INORGAN	CADMIUM	0.5		0.445	mg/L	89	
BLA02	Q592003	NA	CADMIUM			< 0.000400	mg/L		
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
[illegible]	Q598836	INORGAN	CADMIUM	0.1		0.0934	mg/L	93	
BLA01	Q598837	NA	CADMIUM			< 0.000400	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q598838	INORGAN	CADMIUM	0.1		0.0950	mg/L	95	
BLA01	Q598839	NA	CADMIUM			< 0.000400	mg/L		
CDL01	Q598846	PERKIN-	CADMIUM	0.01		0.00934	mg/L	93	
ICS-A	Q598847	PERKIN	CADMIUM	1		0.883	mg/L	88	

CALCIUM ICP SW846-6010A M109.3

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306579 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591987	SPEX	R307376
BLA02	Q591988	NA	R307376
SP102	Q591989	A393077	R307376
DPS02	Q591990	A393077	R307376
SAMPLE	A393078	Rep: 0	R307376
SAMPLE	A393079	Rep: 0	R307376
SAMPLE	A393080	Rep: 0	R307376

Run: R306598 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

[illegible]S	Q592160	SPEX	R307356
[illegible]A02	Q592161	NA	R307356

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SPI02	Q592162	A393067	R307356
;02	Q592163	A393067	R307356
SAMPLE	A393067	Rep: 0	R307356
SAMPLE	A393068	Rep: 0	R307356
SAMPLE	A393069	Rep: 0	R307356
SAMPLE	A393070	Rep: 0	R307356
SAMPLE	A393071	Rep: 0	R307356
SAMPLE	A393072	Rep: 0	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597320	SPEX	CALCIUM	20		20.7	mg/L	104	
ICS-A	Q597328	PERKIN	CALCIUM	500		462.	mg/L	92	
CCV	Q597333	INORGAN	CALCIUM	50.0		48.7	mg/L	97	
BLA01	Q597334	NA	CALCIUM			< 0.0800	mg/L		
BLA02	Q592161	NA	CALCIUM			< 0.0800	mg/L		
LCS	Q592160	SPEX	CALCIUM	100		91.8	mg/L	92	
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SPI02	Q592162	A393067	CALCIUM	84.7	100	178.	mg/L	93	
DPS02	Q592163	A393067	CALCIUM	84.7	100	183.	mg/L	98	6
CCV	Q597335	INORGAN	CALCIUM	50.0		47.7	mg/L	95	
BLA01	Q597336	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
V	Q597337	INORGAN	CALCIUM	50.0		49.0	mg/L	98	
BLA01	Q597338	NA	CALCIUM			< 0.0800	mg/L		
ICS-A	Q597340	PERKIN	CALCIUM	500		460.	mg/L	92	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597391	SPEX	CALCIUM	20		20.4	mg/L	102	
ICS-A	Q597409	PERKIN	CALCIUM	500		450.	mg/L	90	
BLA02	Q591988	NA	CALCIUM			0.0810	mg/L		
LCS	Q591987	SPEX	CALCIUM	100		89.2	mg/L	89	
SPI02	Q591989	A393077	CALCIUM	61.9	100	152.	mg/L	90	
DPS02	Q591990	A393077	CALCIUM	61.9	100	155.	mg/L	93	3
CCV	Q597425	INORGAN	CALCIUM	50.0		47.0	mg/L	94	
BLA01	Q597426	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
CCV	Q597434	INORGAN	CALCIUM	50.0		47.8	mg/L	96	
BLA01	Q597435	NA	CALCIUM			< 0.0800	mg/L		
ICS-A	Q597437	PERKIN	CALCIUM	500		451.	mg/L	90	

CHROMIUM ICP SW846-6010A MI10.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
BLA02	Q591998	NA	R307376
.02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376
LCS	Q592002	INORGAN	R307568
BLA02	Q592003	NA	R307568

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356
LCS	Q592178	INORGAN	R307396
BLA02	Q592179	NA	R307396
SPI02	Q592180	A393071	R307396

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Vat	Observed	Units	% Rec	RPD
ICV01	Q597318	PERKIN	CHROMIUM	1		1.02	mg/L	102	
L01	Q597327	PERKIN	CHROMIUM	0.020		0.0227	mg/L	114	
ICS-A	Q597328	PERKIN	CHROMIUM	0.500		0.468	mg/L	94	
CCV	Q597329	INORGAN	CHROMIUM	5.00		4.95	mg/L	99	
BLA01	Q597330	NA	CHROMIUM			< 0.00400	mg/L		
BLA02	Q592174	NA	CHROMIUM			< 0.00400	mg/L		
LCS	Q592173	SPEX	CHROMIUM	2.00		1.92	mg/L	96	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	CHROMIUM	0	0.200	0.194	mg/L	97	
DPS02	Q592176	A393071	CHROMIUM	0	0.200	0.193	mg/L	97	1
CCV	Q597331	INORGAN	CHROMIUM	5.00		5.01	mg/L	100	
BLA01	Q597332	NA	CHROMIUM			< 0.00400	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	CHROMIUM	5.00		4.98	mg/L	100	
BLA01	Q597334	NA	CHROMIUM			< 0.00400	mg/L		
CDL01	Q597339	PERKIN	CHROMIUM	0.020		0.0202	mg/L	101	
ICS-A	Q597340	PERKIN	CHROMIUM	0.500		0.468	mg/L	94	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597389	PERKIN	CHROMIUM	1		0.985	mg/L	99	
CDL01	Q597408	PERKIN	CHROMIUM	0.020		0.0212	mg/L	106	
ICS-A	Q597409	PERKIN	CHROMIUM	0.500		0.452	mg/L	90	
CCV	Q597410	INORGAN	CHROMIUM	5.00		4.83	mg/L	97	
BLA01	Q597412	NA	CHROMIUM			< 0.00400	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q591998	NA	CHROMIUM			< 0.00400	mg/L		
;	Q591997	SPEX	CHROMIUM	2.00		1.82	mg/L	91	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	CHROMIUM	0	0.200	0.186	mg/L	93	
DPS02	Q592000	A393080	CHROMIUM	0	0.200	0.187	mg/L	94	1
CCV	Q597413	INORGAN	CHROMIUM	5.00		4.73	mg/L	95	
BLA01	Q597416	NA	CHROMIUM			< 0.00400	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	CHROMIUM	5.00		4.74	mg/L	95	
BLA01	Q597422	NA	CHROMIUM			< 0.00400	mg/L		
CDL01	Q597436	PERKIN	CHROMIUM	0.020		0.0204	mg/L	102	
ICS-A	Q597437	PERKIN	CHROMIUM	0.500		0.455	mg/L	91	

Run: R307396 Analyst.: A ROBERTSON Run Date...: 21-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 22-NOV-96

LCS	Q592178	INORGAN	CHROMIUM	0.5		0.459	mg/L	92	
BLA02	Q592179	NA	CHROMIUM			< 0.000400	mg/L		
SPI02	Q592180	A393071	CHROMIUM	0.00156	0.2	0.197	mg/L	98	

Run: R307568 Analyst.: A ROBERTSON Run Date...: 22-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 25-NOV-96

LCS	Q592002	INORGAN	CHROMIUM	0.5		0.446	mg/L	89	
BLA02	Q592003	NA	CHROMIUM			0.000910	mg/L		

COPPER ICP SW846-6010A MI12.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV01	Q597318	PERKIN	COPPER	1		1.02	mg/L	102	
CDL01	Q597327	PERKIN	COPPER	0.050		0.0542	mg/L	108	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICS-A	Q597328	PERKIN	COPPER	0.500		0.483	mg/L	97	
/	Q597329	INORGAN	COPPER	5.00		5.03	mg/L	101	
BLA01	Q597330	NA	COPPER			< 0.00800	mg/L		
BLA02	Q592174	NA	COPPER			< 0.00800	mg/L		
LCS	Q592173	SPEX	COPPER	2.50		2.44	mg/L	98	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	COPPER	0	0.250	0.252	mg/L	101	
DPS02	Q592176	A393071	COPPER	0	0.250	0.254	mg/L	102	1
CCV	Q597331	INORGAN	COPPER	5.00		5.06	mg/L	101	
BLA01	Q597332	NA	COPPER			< 0.00800	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	COPPER	5.00		5.00	mg/L	100	
BLA01	Q597334	NA	COPPER			< 0.00800	mg/L		
CDL01	Q597339	PERKIN	COPPER	0.050		0.0512	mg/L	102	
ICS-A	Q597340	PERKIN	COPPER	0.500		0.484	mg/L	97	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597389	PERKIN	COPPER	1		0.986	mg/L	99	
CDL01	Q597408	PERKIN	COPPER	0.050		0.0472	mg/L	94	
ICS-A	Q597409	PERKIN	COPPER	0.500		0.467	mg/L	93	
CCV	Q597410	INORGAN	COPPER	5.00		4.91	mg/L	98	
BLA01	Q597412	NA	COPPER			< 0.00800	mg/L		
BLA02	Q591998	NA	COPPER			< 0.00800	mg/L		
LCS	Q591997	SPEX	COPPER	2.50		2.37	mg/L	95	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	COPPER	0	0.250	0.240	mg/L	96	
DPS02	Q592000	A393080	COPPER	0	0.250	0.239	mg/L	96	0
CCV	Q597413	INORGAN	COPPER	5.00		4.82	mg/L	96	
BLA01	Q597416	NA	COPPER			< 0.00800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	COPPER	5.00		4.84	mg/L	97	
BLA01	Q597422	NA	COPPER			< 0.00800	mg/L		
CDL01	Q597436	PERKIN	COPPER	0.050		0.0462	mg/L	92	
ICS-A	Q597437	PERKIN	COPPER	0.500		0.470	mg/L	94	

IRON ICP SW846-6010A M115.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307509
BLA02	Q591998	NA	R307509
SPI02	Q591999	A393080	R307509
DPS02	Q592000	A393080	R307509
SAMPLE	A393077	Rep: 1	R307509
SAMPLE	A393078	Rep: 1	R307509
SAMPLE	A393079	Rep: 1	R307509

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A393080	Rep: 1	R307509

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356
SAMPLE	A393073	Rep: 1	R307356
SAMPLE	A393074	Rep: 1	R307356
SAMPLE	A393075	Rep: 1	R307356
SAMPLE	A393076	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597318	PERKIN	IRON	1		1.02	mg/L	102	
CDL01	Q597323	INORGAN	IRON	10		10.2	mg/L	102	
ICS-A	Q597328	PERKIN	IRON	200		180.	mg/L	90	
CCV	Q597329	INORGAN	IRON	5.00		5.01	mg/L	100	
BLA01	Q597330	NA	IRON			0.0152	mg/L		
BLA02	Q592174	NA	IRON			0.0190	mg/L		
LCS	Q592173	SPEX	IRON	10.0		9.76	mg/L	98	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	IRON	6.67	1	7.5	mg/L	83	
DPS02	Q592176	A393071	IRON	6.67	1	7.44	mg/L	77	8
CCV	Q597331	INORGAN	IRON	5.00		5.06	mg/L	101	
BLA01	Q597332	NA	IRON			< 0.0100	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
SAMPLE	A393073		See Cert. of Analysis, Rep: 1						
SAMPLE	A393074		See Cert. of Analysis, Rep: 1						
SAMPLE	A393075		See Cert. of Analysis, Rep: 1						
SAMPLE	A393076		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	IRON	5.00		5.00	mg/L	100	
BLA01	Q597334	NA	IRON			< 0.0100	mg/L		
ICS-A	Q597340	PERKIN	IRON	200		180.	mg/L	90	

Run: R307509 Analyst.: A HILSCHER Run Date...: 22-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 25-NOV-96

ICV01	Q598334	PERKIN	IRON	1		0.991	mg/L	99	
CDL01	Q598339	INORGAN	IRON	10		10.2	mg/L	102	
ICS-A	Q598340	PERKIN	IRON	200		178.	mg/L	89	
CCV	Q598343	INORGAN	IRON	5.00		4.82	mg/L	96	
BLA01	Q598344	NA	IRON			< 0.0100	mg/L		
BLA02	Q591998	NA	IRON			0.0122	mg/L		
LCS	Q591997	SPEX	IRON	10.0		9.56	mg/L	96	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q591999	A393080	IRON	2.69	1.00	3.49	mg/L	80	
'S02	Q592000	A393080	IRON	2.69	1	3.48	mg/L	79	1
CCV	Q598345	INORGAN	IRON	5.00		4.92	mg/L	98	
BLA01	Q598346	NA	IRON			< 0.0100	mg/L		
SAMPLE	A393077		See Cert. of Analysis, Rep: 1						
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q598347	INORGAN	IRON	5.00		4.99	mg/L	100	
BLA01	Q598348	NA	IRON			< 0.0100	mg/L		
ICS-A	Q598350	PERKIN	IRON	200		178.	mg/L	89	

MAGNESIUM ICP SW846-6010A M118.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

S	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597320	SPEX	MAGNESIUM	20		20.6	mg/L	103	
ICS-A	Q597328	PERKIN	MAGNESIUM	500		483.	mg/L	97	
CCV	Q597329	INORGAN	MAGNESIUM	50.0		49.0	mg/L	98	
BLA01	Q597330	NA	MAGNESIUM			< 0.0800	mg/L		
BLA02	Q592174	NA	MAGNESIUM			0.258	mg/L		
LCS	Q592173	SPEX	MAGNESIUM	100		96.4	mg/L	96	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	MAGNESIUM	32.1	100	132	mg/L	100	
DPS02	Q592176	A393071	MAGNESIUM	32.1	100	131	mg/L	99	1
CCV	Q597331	INORGAN	MAGNESIUM	50.0		49.4	mg/L	99	
BLA01	Q597332	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
'MPLE	A393068		See Cert. of Analysis, Rep: 1						
MPLE	A393069		See Cert. of Analysis, Rep: 1						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
MPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	MAGNESIUM	50.0		48.8	mg/L	98	
BLA01	Q597334	NA	MAGNESIUM			< 0.0800	mg/L		
ICS-A	Q597340	PERKIN	MAGNESIUM	500		482.	mg/L	96	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597391	SPEX	MAGNESIUM	20		20.3	mg/L	102	
ICS-A	Q597409	PERKIN	MAGNESIUM	500		474.	mg/L	95	
CCV	Q597410	INORGAN	MAGNESIUM	50.0		48.1	mg/L	96	
BLA01	Q597412	NA	MAGNESIUM			< 0.0800	mg/L		
BLA02	Q591998	NA	MAGNESIUM			0.147	mg/L		
LCS	Q591997	SPEX	MAGNESIUM	100		93.9	mg/L	94	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	MAGNESIUM	20.6	100	116	mg/L	95	
DPS02	Q592000	A393080	MAGNESIUM	20.6	100	116	mg/L	95	0
CCV	Q597413	INORGAN	MAGNESIUM	50.0		47.4	mg/L	95	
BLA01	Q597416	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	MAGNESIUM	50.0		47.4	mg/L	95	
BLA01	Q597422	NA	MAGNESIUM			< 0.0800	mg/L		
ICS-A	Q597437	PERKIN	MAGNESIUM	500		478.	mg/L	96	

MANGANESE ICP SW846-6010A M119.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376
LCS	Q592002	INORGAN	R307568
BLA02	Q592003	NA	R307568

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356
CS	Q592178	INORGAN	R307396
LA02	Q592179	NA	R307396

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597318	PERKIN	MANGANESE	1		1.02	mg/L	102	
CDL01	Q597327	PERKIN	MANGANESE	0.030		0.0298	mg/L	99	
ICS-A	Q597328	PERKIN	MANGANESE	0.500		0.456	mg/L	91	
CCV	Q597329	INORGAN	MANGANESE	5.00		4.96	mg/L	99	
BLA01	Q597330	NA	MANGANESE			< 0.00400	mg/L		
BLA02	Q592174	NA	MANGANESE			< 0.00400	mg/L		
LCS	Q592173	SPEX	MANGANESE	5.00		4.83	mg/L	97	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	MANGANESE	1.89	0.5	2.33	mg/L	88	
DPS02	Q592176	A393071	MANGANESE	1.89	0.5	2.31	mg/L	84	5
CCV	Q597331	INORGAN	MANGANESE	5.00		5.02	mg/L	100	
BLA01	Q597332	NA	MANGANESE			< 0.00400	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	MANGANESE	5.00		4.99	mg/L	100	
BLA01	Q597334	NA	MANGANESE			< 0.00400	mg/L		
CDL01	Q597339	PERKIN	MANGANESE	0.030		0.0293	mg/L	98	
ICS-A	Q597340	PERKIN	MANGANESE	0.500		0.456	mg/L	91	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597389	PERKIN	MANGANESE	1		0.988	mg/L	99	
CDL01	Q597408	PERKIN	MANGANESE	0.030		0.0286	mg/L	95	
ICS-A	Q597409	PERKIN	MANGANESE	0.500		0.439	mg/L	88	
CCV	Q597410	INORGAN	MANGANESE	5.00		4.83	mg/L	97	
BLA01	Q597412	NA	MANGANESE			< 0.00400	mg/L		
BLA02	Q591998	NA	MANGANESE			< 0.00400	mg/L		
LCS	Q591997	SPEX	MANGANESE	5.00		4.58	mg/L	92	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	MANGANESE	0.328	0.5	0.769	mg/L	88	
DPS02	Q592000	A393080	MANGANESE	0.328	0.5	0.767	mg/L	88	0
CCV	Q597413	INORGAN	MANGANESE	5.00		4.73	mg/L	95	
BLA01	Q597416	NA	MANGANESE			< 0.00400	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	MANGANESE	5.00		4.75	mg/L	95	
BLA01	Q597422	NA	MANGANESE			< 0.00400	mg/L		
CDL01	Q597436	PERKIN	MANGANESE	0.030		0.0286	mg/L	95	
ICS-A	Q597437	PERKIN	MANGANESE	0.500		0.443	mg/L	89	

Run: R307396 Analyst.: A ROBERTSON Run Date...: 21-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 22-NOV-96

LCS	Q592178	INORGAN	MANGANESE	0.5		0.448	mg/L	90	
BLA02	Q592179	NA	MANGANESE			0.000560	mg/L		

Run: R307568 Analyst.: A ROBERTSON Run Date...: 22-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 25-NOV-96

LCS	Q592002	INORGAN	MANGANESE	0.5		0.460	mg/L	92	
BLA02	Q592003	NA	MANGANESE			< 0.000400	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

POTASSIUM ICP SW846-6010A M126.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597319	PERKIN	POTASSIUM	20.0		20.2	mg/L	101	
ICV01	Q597320	SPEX	POTASSIUM	20		20.4	mg/L	102	
CCV	Q597329	INORGAN	POTASSIUM	50		49.3	mg/L	99	
BLA01	Q597330	NA	POTASSIUM			0.177	mg/L		
BLA02	Q592174	NA	POTASSIUM			0.694	mg/L		
LCS	Q592173	SPEX	POTASSIUM	100		97.2	mg/L	97	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	POTASSIUM	0.899	100	102	mg/L	101	
DPS02	Q592176	A393071	POTASSIUM	0.899	100	102	mg/L	101	0
CCV	Q597331	INORGAN	POTASSIUM	50		49.6	mg/L	99	
BLA01	Q597332	NA	POTASSIUM			0.21	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	POTASSIUM	50		48.9	mg/L	98	
BLA01	Q597334	NA	POTASSIUM			0.166	mg/L		

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597390	PERKIN	POTASSIUM	20.0		19.4	mg/L	97	
ICV01	Q597391	SPEX	POTASSIUM	20		19.8	mg/L	99	
CCV	Q597410	INORGAN	POTASSIUM	50		47.9	mg/L	96	
BLA01	Q597412	NA	POTASSIUM			0.108	mg/L		
BLA02	Q591998	NA	POTASSIUM			0.198	mg/L		
LCS	Q591997	SPEX	POTASSIUM	100		94.3	mg/L	94	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q591999	A393080	POTASSIUM	1.14	100	98.5	mg/L	97	
S02	Q592000	A393080	POTASSIUM	1.14	100	97.7	mg/L	97	0
CCV	Q597413	INORGAN	POTASSIUM	50		47.4	mg/L	95	
BLA01	Q597416	NA	POTASSIUM			< 0.0800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	POTASSIUM	50		47.2	mg/L	94	
BLA01	Q597422	NA	POTASSIUM			< 0.0800	mg/L		

SODIUM ICP SW846-6010A M131.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597319	PERKIN	SODIUM	2		2.04	mg/L	102	
ICV01	Q597320	SPEX	SODIUM	20		20.5	mg/L	103	
CCV	Q597329	INORGAN	SODIUM	50		49.2	mg/L	98	
BLA01	Q597330	NA	SODIUM			< 0.0800	mg/L		
BLA02	Q592174	NA	SODIUM			0.438	mg/L		
LCS	Q592173	SPEX	SODIUM	100		99.5	mg/L	100	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	SODIUM	113	100	213	mg/L	100	
DPS02	Q592176	A393071	SODIUM	113	100	212	mg/L	99	1
CCV	Q597331	INORGAN	SODIUM	50		49.8	mg/L	100	
BLA01	Q597332	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q597333	INORGAN	SODIUM	50		49.4	mg/L	99	
\01	Q597334	NA	SODIUM			< 0.0800	mg/L		

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597390	PERKIN	SODIUM	2		1.99	mg/L	100	
ICV01	Q597391	SPEX	SODIUM	20		20.1	mg/L	101	
CCV	Q597410	INORGAN	SODIUM	50		47.5	mg/L	95	
BLA01	Q597412	NA	SODIUM			< 0.0800	mg/L		
BLA02	Q591998	NA	SODIUM			0.162	mg/L		
LCS	Q591997	SPEX	SODIUM	100		92.6	mg/L	93	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	SODIUM	85.8	100	178	mg/L	92	
DPS02	Q592000	A393080	SODIUM	85.8	100	176	mg/L	90	2
CCV	Q597413	INORGAN	SODIUM	50		46.3	mg/L	93	
BLA01	Q597416	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	SODIUM	50		46.6	mg/L	93	
BLA01	Q597422	NA	SODIUM			< 0.0800	mg/L		

ZINC ICP SW846-6010A M139.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306580 Analyst.: G CARTER Run Date...: 21-NOV-96
PREP Reviewer: W WATNESS Review Date: 22-NOV-96

QC Type	Lab ID	Source	Anal Run
S	Q591997	SPEX	R307376
BLA02	Q591998	NA	R307376
SPI02	Q591999	A393080	R307376
DPS02	Q592000	A393080	R307376
SAMPLE	A393078	Rep: 1	R307376
SAMPLE	A393079	Rep: 1	R307376
SAMPLE	A393080	Rep: 1	R307376

Run: R306599 Analyst.: G CARTER Run Date...: 20-NOV-96
PREP Reviewer: W WATNESS Review Date: 20-NOV-96

LCS	Q592173	SPEX	R307356
BLA02	Q592174	NA	R307356
SPI02	Q592175	A393071	R307356
DPS02	Q592176	A393071	R307356
SAMPLE	A393067	Rep: 1	R307356
SAMPLE	A393068	Rep: 1	R307356
SAMPLE	A393069	Rep: 1	R307356
SAMPLE	A393070	Rep: 1	R307356
SAMPLE	A393071	Rep: 1	R307356
SAMPLE	A393072	Rep: 1	R307356

Run: R307356 Analyst.: A HILSCHER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q597318	PERKIN	ZINC	1		1.01	mg/L	101	
CDL01	Q597327	PERKIN	ZINC	0.040		0.0486	mg/L	122	
ICS-A	Q597328	PERKIN	ZINC	1.00		0.946	mg/L	95	
CV	Q597329	INORGAN	ZINC	5.00		4.96	mg/L	99	
A01	Q597330	NA	ZINC			< 0.00800	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q592174	NA	ZINC			0.0197	mg/L		
[illegible]	Q592173	SPEX	ZINC	5.00		4.85	mg/L	97	
SAMPLE	A393071		See Cert. of Analysis, Rep: 1						
SPI02	Q592175	A393071	ZINC	0	0.500	0.499	mg/L	100	
DPS02	Q592176	A393071	ZINC	0	0.500	0.499	mg/L	100	0
CCV	Q597331	INORGAN	ZINC	5.00		5.00	mg/L	100	
BLA01	Q597332	NA	ZINC			< 0.00800	mg/L		
SAMPLE	A393067		See Cert. of Analysis, Rep: 1						
SAMPLE	A393068		See Cert. of Analysis, Rep: 1						
SAMPLE	A393069		See Cert. of Analysis, Rep: 1						
SAMPLE	A393070		See Cert. of Analysis, Rep: 1						
SAMPLE	A393072		See Cert. of Analysis, Rep: 1						
CCV	Q597333	INORGAN	ZINC	5.00		4.97	mg/L	99	
BLA01	Q597334	NA	ZINC			< 0.00800	mg/L		
CDL01	Q597339	PERKIN	ZINC	0.040		0.0476	mg/L	119	
ICS-A	Q597340	PERKIN	ZINC	1.00		0.947	mg/L	95	

Run: R307376 Analyst.: A STOCKBURGER Run Date...: 21-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-NOV-96

ICV01	Q597389	PERKIN	ZINC	1		0.990	mg/L	99	
CDL01	Q597408	PERKIN	ZINC	0.040		0.0465	mg/L	116	
ICS-A	Q597409	PERKIN	ZINC	1.00		0.936	mg/L	94	
CCV	Q597410	INORGAN	ZINC	5.00		4.95	mg/L	99	
BLA01	Q597412	NA	ZINC			< 0.00800	mg/L		
BLA02	Q591998	NA	ZINC			0.0130	mg/L		
LCS	Q591997	SPEX	ZINC	5.00		4.74	mg/L	95	
SAMPLE	A393080		See Cert. of Analysis, Rep: 1						
SPI02	Q591999	A393080	ZINC	0	0.500	0.488	mg/L	98	
[illegible]02	Q592000	A393080	ZINC	0	0.500	0.488	mg/L	98	0
CCV	Q597413	INORGAN	ZINC	5.00		4.87	mg/L	97	
BLA01	Q597416	NA	ZINC			< 0.00800	mg/L		
SAMPLE	A393078		See Cert. of Analysis, Rep: 1						
SAMPLE	A393079		See Cert. of Analysis, Rep: 1						
CCV	Q597421	INORGAN	ZINC	5.00		4.86	mg/L	97	
BLA01	Q597422	NA	ZINC			< 0.00800	mg/L		
CDL01	Q597436	PERKIN	ZINC	0.040		0.0450	mg/L	113	
ICS-A	Q597437	PERKIN	ZINC	1.00		0.939	mg/L	94	

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A 0510.6

Run: R307738 Analyst.: R SHAMP Run Date...: 22-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 26-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q599938		See Attached Report: g8830j.ind			*			
BLA01	Q599939		See Attached Report: g8849j.ind						
SAMPLE	A393067		See Cert. of Analysis, Rep: 0						
SAMPLE	A393068		See Cert. of Analysis, Rep: 0						
SAMPLE	A393071		See Cert. of Analysis, Rep: 0						
SPI01	Q599940	A393071	BENZENE	0	50	50.2	ug/L	100.4	
SPI01	Q599940	A393071	CARBON TETRACHLORIDE	0	50	53.8	ug/L	107.6	
SPI01	Q599940	A393071	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	44.4	ug/L	88.8	
SPI01	Q599940	A393071	1,2-DICHLOROETHANE	0	50	56.6	ug/L	113.2	
[illegible]I01	Q599940	A393071	1,1-DICHLOROETHENE	0	50	46.1	ug/L	92.2	
[illegible]I01	Q599940	A393071	1,1,1-TRICHLOROETHANE	0	50	61.5	ug/L	123	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q599940	A393071	TRICHLOROETHENE	0	50	48.2	ug/L	96.4	
I01	Q599940	A393071	VINYL CHLORIDE	0	50	55	ug/L	110	
SPI01	Q599940	A393071	BROMOMETHANE	0	50	48.1	ug/L	96.2	
SPI01	Q599940	A393071	CHLOROBENZENE	0	50	49.3	ug/L	98.6	
SPI01	Q599940	A393071	CHLOROETHANE	0	50	46.8	ug/L	93.6	
SPI01	Q599940	A393071	CHLOROFORM	0	50	60	ug/L	120	
SPI01	Q599940	A393071	CHLOROMETHANE	0	50	47.9	ug/L	95.8	
SPI01	Q599940	A393071	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	48.4	ug/L	96.8	
SPI01	Q599940	A393071	TRANS-1,2-DICHLOROETHENE	0	50	49.2	ug/L	98.4	
SPI01	Q599940	A393071	CIS-1,2-DICHLOROETHENE	0	50	55.8	ug/L	111.6	
SPI01	Q599940	A393071	DICHLOROMETHANE (METHYLENE CHLORIDE)	7	50	45	ug/L	76	
SPI01	Q599940	A393071	1,1-DICHLOROETHANE	0	50	54.8	ug/L	109.6	
SPI01	Q599940	A393071	1,2-DICHLOROPROPANE	0	50	51.8	ug/L	103.6	
SPI01	Q599940	A393071	CIS-1,3-DICHLOROPROPENE	0	50	51.6	ug/L	103.2	
SPI01	Q599940	A393071	TRANS-1,3-DICHLOROPROPENE	0	50	51.8	ug/L	103.6	
SPI01	Q599940	A393071	ETHYL BENZENE	0	50	49.7	ug/L	99.4	
SPI01	Q599940	A393071	STYRENE	0	50	51.9	ug/L	103.8	
SPI01	Q599940	A393071	1,1,2-TRICHLOROETHANE	0	50	52.4	ug/L	104.8	
SPI01	Q599940	A393071	1,1,1,2-TETRACHLOROETHANE	0	50	51.1	ug/L	102.2	
SPI01	Q599940	A393071	1,1,2,2-TETRACHLOROETHANE	0	50	48.9	ug/L	97.8	
SPI01	Q599940	A393071	TETRACHLOROETHENE	0	50	46.3	ug/L	92.6	
SPI01	Q599940	A393071	TOLUENE	0	50	49.7	ug/L	99.4	
SPI01	Q599940	A393071	TRICHLOROFLUOROMETHANE	0	50	55.1	ug/L	110.2	
DPS01	Q599941	A393071	BENZENE	0	50	52.7	ug/L	105.4	4.9
DPS01	Q599941	A393071	CARBON TETRACHLORIDE	0	50	51.7	ug/L	103.4	4
DPS01	Q599941	A393071	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	46.1	ug/L	92.2	3.8
DPS01	Q599941	A393071	1,2-DICHLOROETHANE	0	50	55.7	ug/L	111.4	1.6
S01	Q599941	A393071	1,1-DICHLOROETHENE	0	50	51.5	ug/L	103	11.1
DPS01	Q599941	A393071	1,1,1-TRICHLOROETHANE	0	50	58.3	ug/L	116.6	5.3
DPS01	Q599941	A393071	TRICHLOROETHENE	0	50	49.7	ug/L	99.4	3.1
DPS01	Q599941	A393071	VINYL CHLORIDE	0	50	56	ug/L	112	1.8
DPS01	Q599941	A393071	BROMOMETHANE	0	50	53	ug/L	106	9.7
DPS01	Q599941	A393071	CHLOROBENZENE	0	50	50.5	ug/L	101	2.4
DPS01	Q599941	A393071	CHLOROETHANE	0	50	54.5	ug/L	109	15.2
DPS01	Q599941	A393071	CHLOROFORM	0	50	58.2	ug/L	116.4	3
DPS01	Q599941	A393071	CHLOROMETHANE	0	50	52.5	ug/L	105	9.2
DPS01	Q599941	A393071	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.5	ug/L	101	4.2
DPS01	Q599941	A393071	TRANS-1,2-DICHLOROETHENE	0	50	53.7	ug/L	107.4	8.7
DPS01	Q599941	A393071	CIS-1,2-DICHLOROETHENE	0	50	56.6	ug/L	113.2	1.4
DPS01	Q599941	A393071	DICHLOROMETHANE (METHYLENE CHLORIDE)	7	50	55.9	ug/L	97.8	25.1
DPS01	Q599941	A393071	1,1-DICHLOROETHANE	0	50	54.7	ug/L	109.4	.2
DPS01	Q599941	A393071	1,2-DICHLOROPROPANE	0	50	53.7	ug/L	107.4	3.6
DPS01	Q599941	A393071	CIS-1,3-DICHLOROPROPENE	0	50	53.4	ug/L	106.8	3.4
DPS01	Q599941	A393071	TRANS-1,3-DICHLOROPROPENE	0	50	51.8	ug/L	103.6	0
DPS01	Q599941	A393071	ETHYL BENZENE	0	50	50.5	ug/L	101	1.6
DPS01	Q599941	A393071	STYRENE	0	50	52.2	ug/L	104.4	.6
DPS01	Q599941	A393071	1,1,2-TRICHLOROETHANE	0	50	53.1	ug/L	106.2	1.3
DPS01	Q599941	A393071	1,1,1,2-TETRACHLOROETHANE	0	50	51.6	ug/L	103.2	1
DPS01	Q599941	A393071	1,1,2,2-TETRACHLOROETHANE	0	50	52.8	ug/L	105.6	7.7
DPS01	Q599941	A393071	TETRACHLOROETHENE	0	50	47.3	ug/L	94.6	2.1
DPS01	Q599941	A393071	TOLUENE	0	50	50.4	ug/L	100.8	1.4
DPS01	Q599941	A393071	TRICHLOROFLUOROMETHANE	0	50	54.2	ug/L	108.4	1.6

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307973 Analyst.: R SHAMP Run Date...: 23-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 27-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q601678		See Attached Report: g8860j.ind			*			
BLA01	Q601679		See Attached Report: g8861j.ind						
LCS01	Q601680	METHOD	BENZENE	20		20.5	ug/L	102.5	
LCS01	Q601680	METHOD	CARBON TETRACHLORIDE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	20		19.5	ug/L	97.5	
LCS01	Q601680	METHOD	1,2-DICHLOROETHANE	20		21.8	ug/L	109	
LCS01	Q601680	METHOD	1,1-DICHLOROETHENE	20		16.3	ug/L	81.5	
LCS01	Q601680	METHOD	1,1,1-TRICHLOROETHANE	20		12.3	ug/L	61.5	
LCS01	Q601680	METHOD	TRICHLOROETHENE	20		19.2	ug/L	96	
LCS01	Q601680	METHOD	VINYL CHLORIDE	20		20.3	ug/L	101.5	
LCS01	Q601680	METHOD	BROMOMETHANE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	CHLOROBENZENE	20		19.7	ug/L	98.5	
LCS01	Q601680	METHOD	CHLOROETHANE	20		17.1	ug/L	85.5	
LCS01	Q601680	METHOD	CHLOROFORM	20		21.4	ug/L	107	
LCS01	Q601680	METHOD	CHLOROMETHANE	20		18.9	ug/L	94.5	
LCS01	Q601680	METHOD	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	TRANS-1,2-DICHLOROETHENE	20		18.5	ug/L	92.5	
LCS01	Q601680	METHOD	CIS-1,2-DICHLOROETHENE	20		20	ug/L	100	
LCS01	Q601680	METHOD	DICHLOROMETHANE (METHYLENE CHLORIDE)	20		19.8	ug/L	99	
LCS01	Q601680	METHOD	1,1-DICHLOROETHANE	20		19.6	ug/L	98	
LCS01	Q601680	METHOD	1,2-DICHLOROPROPANE	20		20.2	ug/L	101	
LCS01	Q601680	METHOD	CIS-1,3-DICHLOROPROPENE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	TRANS-1,3-DICHLOROPROPENE	20		20.5	ug/L	102.5	
LCS01	Q601680	METHOD	ETHYL BENZENE	20		20	ug/L	100	
LCS01	Q601680	METHOD	STYRENE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	1,1,2-TRICHLOROETHANE	20		20.8	ug/L	104	
LCS01	Q601680	METHOD	1,1,1,2-TETRACHLOROETHANE	20		19.7	ug/L	98.5	
LCS01	Q601680	METHOD	1,1,2,2-TETRACHLOROETHANE	20		21.1	ug/L	105.5	
LCS01	Q601680	METHOD	TETRACHLOROETHENE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	TOLUENE	20		19.2	ug/L	96	
LCS01	Q601680	METHOD	TRICHLOROFLUOROMETHANE	20		17.6	ug/L	88	
SAMPLE	A393069		See Cert. of Analysis, Rep: 0						
SAMPLE	A393070		See Cert. of Analysis, Rep: 0						
SAMPLE	A393072		See Cert. of Analysis, Rep: 0						
SAMPLE	A393073		See Cert. of Analysis, Rep: 0						
SAMPLE	A393074		See Cert. of Analysis, Rep: 0						
SAMPLE	A393076		See Cert. of Analysis, Rep: 0						
SAMPLE	A393078		See Cert. of Analysis, Rep: 0						
SPI01	Q601681	A393078	BENZENE	0	50	50.6	ug/L	101.2	
SPI01	Q601681	A393078	CARBON TETRACHLORIDE	0	50	50.6	ug/L	101.2	
SPI01	Q601681	A393078	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	50.7	ug/L	101.4	
SPI01	Q601681	A393078	1,2-DICHLOROETHANE	0	50	53.6	ug/L	107.2	
SPI01	Q601681	A393078	1,1-DICHLOROETHENE	0	50	42.4	ug/L	84.8	
SPI01	Q601681	A393078	1,1,1-TRICHLOROETHANE	0	50	57.5	ug/L	115	
SPI01	Q601681	A393078	TRICHLOROETHENE	0	50	48.4	ug/L	96.8	
SPI01	Q601681	A393078	VINYL CHLORIDE	0	50	48.6	ug/L	97.2	
SPI01	Q601681	A393078	BROMOMETHANE	0	50	47.5	ug/L	95	
SPI01	Q601681	A393078	CHLOROBENZENE	0	50	50.5	ug/L	101	
SPI01	Q601681	A393078	CHLOROETHANE	0	50	44.3	ug/L	88.6	
SPI01	Q601681	A393078	CHLOROFORM	0	50	55.8	ug/L	111.6	
SPI01	Q601681	A393078	CHLOROMETHANE	0	50	45.7	ug/L	91.4	
SPI01	Q601681	A393078	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.2	ug/L	100.4	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q601681	A393078	TRANS-1,2-DICHLOROETHENE	0	50	44.5	ug/L	89	
01	Q601681	A393078	CIS-1,2-DICHLOROETHENE	0	50	52.7	ug/L	105.4	
SPI01	Q601681	A393078	DICHLOROMETHANE (METHYLENE CHLORIDE)	4.8	50	48.9	ug/L	88.2	
SPI01	Q601681	A393078	1,1-DICHLOROETHANE	0	50	50.1	ug/L	100.2	
SPI01	Q601681	A393078	1,2-DICHLOROPROPANE	0	50	52.3	ug/L	104.6	
SPI01	Q601681	A393078	CIS-1,3-DICHLOROPROPENE	0	50	52.4	ug/L	104.8	
SPI01	Q601681	A393078	TRANS-1,3-DICHLOROPROPENE	0	50	53.2	ug/L	106.4	
SPI01	Q601681	A393078	ETHYL BENZENE	0	50	51.6	ug/L	103.2	
SPI01	Q601681	A393078	STYRENE	0	50	51.9	ug/L	103.8	
SPI01	Q601681	A393078	1,1,2-TRICHLOROETHANE	0	50	54.2	ug/L	108.4	
SPI01	Q601681	A393078	1,1,1,2-TETRACHLOROETHANE	0	50	52.1	ug/L	104.2	
SPI01	Q601681	A393078	1,1,2,2-TETRACHLOROETHANE	0	50	47.3	ug/L	94.6	
SPI01	Q601681	A393078	TETRACHLOROETHENE	0	50	47.4	ug/L	94.8	
SPI01	Q601681	A393078	TOLUENE	0	50	53.5	ug/L	107	
SPI01	Q601681	A393078	TRICHLOROFLUOROMETHANE	0	50	49.8	ug/L	99.6	
DPS01	Q601682	A393078	BENZENE	0	50	52.7	ug/L	105.4	4.1
DPS01	Q601682	A393078	CARBON TETRACHLORIDE	0	50	49.2	ug/L	98.4	2.8
DPS01	Q601682	A393078	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	50.4	ug/L	100.8	.6
DPS01	Q601682	A393078	1,2-DICHLOROETHANE	0	50	52.6	ug/L	105.2	1.9
DPS01	Q601682	A393078	1,1-DICHLOROETHENE	0	50	47.3	ug/L	94.6	10.9
DPS01	Q601682	A393078	1,1,1-TRICHLOROETHANE	0	50	53.1	ug/L	106.2	8
DPS01	Q601682	A393078	TRICHLOROETHENE	0	50	50.8	ug/L	101.6	4.8
DPS01	Q601682	A393078	VINYL CHLORIDE	0	50	50.9	ug/L	101.8	4.6
DPS01	Q601682	A393078	BROMOMETHANE	0	50	51.1	ug/L	102.2	7.3
DPS01	Q601682	A393078	CHLOROBENZENE	0	50	51.5	ug/L	103	2
DPS01	Q601682	A393078	CHLOROETHANE	0	50	48	ug/L	96	8
DPS01	Q601682	A393078	CHLOROFORM	0	50	53.4	ug/L	106.8	4.4
01	Q601682	A393078	CHLOROMETHANE	0	50	48.1	ug/L	96.2	5.1
DPS01	Q601682	A393078	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.3	ug/L	100.6	.2
DPS01	Q601682	A393078	TRANS-1,2-DICHLOROETHENE	0	50	47.9	ug/L	95.8	7.4
DPS01	Q601682	A393078	CIS-1,2-DICHLOROETHENE	0	50	52.3	ug/L	104.6	.8
DPS01	Q601682	A393078	DICHLOROMETHANE (METHYLENE CHLORIDE)	4.8	50	54.6	ug/L	99.6	12.1
DPS01	Q601682	A393078	1,1-DICHLOROETHANE	0	50	49.4	ug/L	98.8	1.4
DPS01	Q601682	A393078	1,2-DICHLOROPROPANE	0	50	52.7	ug/L	105.4	.8
DPS01	Q601682	A393078	CIS-1,3-DICHLOROPROPENE	0	50	52.5	ug/L	105	.2
DPS01	Q601682	A393078	TRANS-1,3-DICHLOROPROPENE	0	50	52.3	ug/L	104.6	1.7
DPS01	Q601682	A393078	ETHYL BENZENE	0	50	51.1	ug/L	102.2	1
DPS01	Q601682	A393078	STYRENE	0	50	52.5	ug/L	105	1.1
DPS01	Q601682	A393078	1,1,2-TRICHLOROETHANE	0	50	53.6	ug/L	107.2	1.1
DPS01	Q601682	A393078	1,1,1,2-TETRACHLOROETHANE	0	50	51.3	ug/L	102.6	1.5
DPS01	Q601682	A393078	1,1,2,2-TETRACHLOROETHANE	0	50	48.9	ug/L	97.8	3.3
DPS01	Q601682	A393078	TETRACHLOROETHENE	0	50	48.7	ug/L	97.4	2.7
DPS01	Q601682	A393078	TOLUENE	0	50	52.6	ug/L	105.2	1.7
DPS01	Q601682	A393078	TRICHLOROFLUOROMETHANE	0	50	47.8	ug/L	95.6	4.1

Run: R308132 Analyst.: R SHAMP Run Date...: 24-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: H WILLIAMS Review Date: 02-DEC-96

CCV	Q602346		See Attached Report: g8880j.ind			*			
BLA01	Q602347		See Attached Report: g8896j.ind						
LCS01	Q602351	METHOD	BENZENE	20		22.6	ug/L	113	
LCS01	Q602351	METHOD	CARBON TETRACHLORIDE	20		21.7	ug/L	108.5	
LCS01	Q602351	METHOD	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	20		22.1	ug/L	110.5	
LCS01	Q602351	METHOD	1,2-DICHLOROETHANE	20		23.8	ug/L	119	
S01	Q602351	METHOD	1,1-DICHLOROETHENE	20		17	ug/L	85	
S01	Q602351	METHOD	1,1,1-TRICHLOROETHANE	20		25.2	ug/L	126	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS01	Q602351	METHOD	TRICHLOROETHENE	20		21.2	ug/L	106	
01	Q602351	METHOD	VINYL CHLORIDE	20		21.2	ug/L	106	
LCS01	Q602351	METHOD	BROMOMETHANE	20		21.3	ug/L	106.5	
LCS01	Q602351	METHOD	CHLOROBENZENE	20		21.5	ug/L	107.5	
LCS01	Q602351	METHOD	CHLOROETHANE	20		18	ug/L	90	
LCS01	Q602351	METHOD	CHLOROFORM	20		23.8	ug/L	119	
LCS01	Q602351	METHOD	CHLOROMETHANE	20		19.3	ug/L	96.5	
LCS01	Q602351	METHOD	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	20		22	ug/L	110	
LCS01	Q602351	METHOD	TRANS-1,2-DICHLOROETHENE	20		19.8	ug/L	99	
LCS01	Q602351	METHOD	CIS-1,2-DICHLOROETHENE	20		22.2	ug/L	111	
LCS01	Q602351	METHOD	DICHLOROMETHANE (METHYLENE CHLORIDE)	20		21.1	ug/L	105.5	
LCS01	Q602351	METHOD	1,1-DICHLOROETHANE	20		21.6	ug/L	108	
LCS01	Q602351	METHOD	1,2-DICHLOROPROPANE	20		22.4	ug/L	112	
LCS01	Q602351	METHOD	CIS-1,3-DICHLOROPROPENE	20		22.3	ug/L	111.5	
LCS01	Q602351	METHOD	TRANS-1,3-DICHLOROPROPENE	20		22.3	ug/L	111.5	
LCS01	Q602351	METHOD	ETHYL BENZENE	20		21.9	ug/L	109.5	
LCS01	Q602351	METHOD	STYRENE	20		21.9	ug/L	109.5	
LCS01	Q602351	METHOD	1,1,2-TRICHLOROETHANE	20		23.7	ug/L	118.5	
LCS01	Q602351	METHOD	1,1,1,2-TETRACHLOROETHANE	20		21.3	ug/L	106.5	
LCS01	Q602351	METHOD	1,1,2,2-TETRACHLOROETHANE	20		25.6	ug/L	128	
LCS01	Q602351	METHOD	TETRACHLOROETHENE	20		19.8	ug/L	99	
LCS01	Q602351	METHOD	TOLUENE	20		21.6	ug/L	108	
LCS01	Q602351	METHOD	TRICHLOROFLUOROMETHANE	20		18.5	ug/L	92.5	
SAMPLE	A393075		See Cert. of Analysis, Rep: 0						
SAMPLE	A393077		See Cert. of Analysis, Rep: 0						
SAMPLE	A393080		See Cert. of Analysis, Rep: 0						
SPI01	Q602348	A393247	BENZENE	0	50	57	ug/L	114	
101	Q602348	A393247	CARBON TETRACHLORIDE	0	50	58.7	ug/L	117.4	
SPI01	Q602348	A393247	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	52.6	ug/L	105.2	
SPI01	Q602348	A393247	1,2-DICHLOROETHANE	0	50	69.1	ug/L	138.2	
SPI01	Q602348	A393247	1,1-DICHLOROETHENE	0	50	57.7	ug/L	115.4	
SPI01	Q602348	A393247	1,1,1-TRICHLOROETHANE	0	50	! 76.6	ug/L	153.2	
SPI01	Q602348	A393247	TRICHLOROETHENE	0	50	54.5	ug/L	109	
SPI01	Q602348	A393247	VINYL CHLORIDE	0	50	63.5	ug/L	127	
SPI01	Q602348	A393247	BROMOMETHANE	0	50	55.2	ug/L	110.4	
SPI01	Q602348	A393247	CHLOROBENZENE	0	50	53.2	ug/L	106.4	
SPI01	Q602348	A393247	CHLOROETHANE	0	50	56.1	ug/L	112.2	
SPI01	Q602348	A393247	CHLOROFORM	0	50	! 76.3	ug/L	152.6	
SPI01	Q602348	A393247	CHLOROMETHANE	0	50	47.3	ug/L	94.6	
SPI01	Q602348	A393247	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	53.6	ug/L	107.2	
SPI01	Q602348	A393247	TRANS-1,2-DICHLOROETHENE	0	50	68	ug/L	136	
SPI01	Q602348	A393247	CIS-1,2-DICHLOROETHENE	0	50	70.1	ug/L	140.2	
SPI01	Q602348	A393247	DICHLOROMETHANE (METHYLENE CHLORIDE)	4	50	58.6	ug/L	109.2	
SPI01	Q602348	A393247	1,1-DICHLOROETHANE	0	50	68.1	ug/L	136.2	
SPI01	Q602348	A393247	1,2-DICHLOROPROPANE	0	50	57.2	ug/L	114.4	
SPI01	Q602348	A393247	CIS-1,3-DICHLOROPROPENE	0	50	60	ug/L	120	
SPI01	Q602348	A393247	TRANS-1,3-DICHLOROPROPENE	0	50	61.6	ug/L	123.2	
SPI01	Q602348	A393247	ETHYL BENZENE	0	50	54.2	ug/L	108.4	
SPI01	Q602348	A393247	STYRENE	0	50	59	ug/L	118	
SPI01	Q602348	A393247	1,1,2-TRICHLOROETHANE	0	50	! 64.3	ug/L	128.6	
SPI01	Q602348	A393247	1,1,1,2-TETRACHLOROETHANE	0	50	54.5	ug/L	109	
SPI01	Q602348	A393247	1,1,2,2-TETRACHLOROETHANE	0	50	56.7	ug/L	113.4	
SPI01	Q602348	A393247	TETRACHLOROETHENE	0	50	48.7	ug/L	97.4	
101	Q602348	A393247	TOLUENE	0	50	58.2	ug/L	116.4	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q602348	A393247	TRICHLOROFLUOROMETHANE	0	50	63.3	ug/L	126.6	
301	Q602349	A393247	BENZENE	0	50	60.3	ug/L	120.6	5.6
DPS01	Q602349	A393247	CARBON TETRACHLORIDE	0	50	55.7	ug/L	111.4	5.2
DPS01	Q602349	A393247	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	52.8	ug/L	105.6	.4
DPS01	Q602349	A393247	1,2-DICHLOROETHANE	0	50	57.8	ug/L	115.6	17.8
DPS01	Q602349	A393247	1,1-DICHLOROETHENE	0	50	58.2	ug/L	116.4	.9
DPS01	Q602349	A393247	1,1,1-TRICHLOROETHANE	0	50	63.9	ug/L	127.8	18.1
DPS01	Q602349	A393247	TRICHLOROETHENE	0	50	57	ug/L	114	4.5
DPS01	Q602349	A393247	VINYL CHLORIDE	0	50	58.1	ug/L	116.2	8.9
DPS01	Q602349	A393247	BROMOMETHANE	0	50	56.5	ug/L	113	2.3
DPS01	Q602349	A393247	CHLOROBENZENE	0	50	54.6	ug/L	109.2	2.6
DPS01	Q602349	A393247	CHLOROETHANE	0	50	57.7	ug/L	115.4	2.8
DPS01	Q602349	A393247	CHLOROFORM	0	50	63.9	ug/L	127.8	17.7
DPS01	Q602349	A393247	CHLOROMETHANE	0	50	57.8	ug/L	115.6	20
DPS01	Q602349	A393247	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	54.4	ug/L	108.8	1.5
DPS01	Q602349	A393247	TRANS-1,2-DICHLOROETHENE	0	50	60.5	ug/L	121	11.7
DPS01	Q602349	A393247	CIS-1,2-DICHLOROETHENE	0	50	61.5	ug/L	123	13.1
DPS01	Q602349	A393247	DICHLOROMETHANE (METHYLENE CHLORIDE)	4	50	59.6	ug/L	111.2	1.8
DPS01	Q602349	A393247	1,1-DICHLOROETHANE	0	50	62.8	ug/L	125.6	8.1
DPS01	Q602349	A393247	1,2-DICHLOROPROPANE	0	50	59.4	ug/L	118.8	3.8
DPS01	Q602349	A393247	CIS-1,3-DICHLOROPROPENE	0	50	57.5	ug/L	115	4.3
DPS01	Q602349	A393247	TRANS-1,3-DICHLOROPROPENE	0	50	56.8	ug/L	113.6	8.1
DPS01	Q602349	A393247	ETHYL BENZENE	0	50	55.2	ug/L	110.4	1.8
DPS01	Q602349	A393247	STYRENE	0	50	51.4	ug/L	102.8	13.8
DPS01	Q602349	A393247	1,1,2-TRICHLOROETHANE	0	50	59.1	ug/L	118.2	8.4
DPS01	Q602349	A393247	1,1,1,2-TETRACHLOROETHANE	0	50	54.7	ug/L	109.4	.4
DPS01	Q602349	A393247	1,1,2,2-TETRACHLOROETHANE	0	50	54.2	ug/L	108.4	4.5
S01	Q602349	A393247	TETRACHLOROETHENE	0	50	52.2	ug/L	104.4	6.9
DPS01	Q602349	A393247	TOLUENE	0	50	57.5	ug/L	115	1.2
DPS01	Q602349	A393247	TRICHLOROFLUOROMETHANE	0	50	58.5	ug/L	117	7.9

Run: R308347 Analyst.: R SHAMP Run Date...: 25-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 03-DEC-96

CCV	Q603831		See Attached Report: g8901j.ind			*			
BLA01	Q603832		See Attached Report: g8902j.ind						
LCS01	Q603833	METHOD	BENZENE	20		22.8	ug/L	114	
LCS01	Q603833	METHOD	CARBON TETRACHLORIDE	20		21.1	ug/L	105.5	
LCS01	Q603833	METHOD	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	20		22	ug/L	110	
LCS01	Q603833	METHOD	1,2-DICHLOROETHANE	20		21.1	ug/L	105.5	
LCS01	Q603833	METHOD	1,1-DICHLOROETHENE	20		17.2	ug/L	86	
LCS01	Q603833	METHOD	1,1,1-TRICHLOROETHANE	20		23.2	ug/L	116	
LCS01	Q603833	METHOD	TRICHLOROETHENE	20		21.3	ug/L	106.5	
LCS01	Q603833	METHOD	VINYL CHLORIDE	20		20.1	ug/L	100.5	
LCS01	Q603833	METHOD	BROMOMETHANE	20		20.2	ug/L	101	
LCS01	Q603833	METHOD	CHLOROBENZENE	20		22.1	ug/L	110.5	
LCS01	Q603833	METHOD	CHLOROETHANE	20		18.5	ug/L	92.5	
LCS01	Q603833	METHOD	CHLOROFORM	20		21.5	ug/L	107.5	
LCS01	Q603833	METHOD	CHLOROMETHANE	20		18.9	ug/L	94.5	
LCS01	Q603833	METHOD	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	20		21.5	ug/L	107.5	
LCS01	Q603833	METHOD	TRANS-1,2-DICHLOROETHENE	20		19	ug/L	95	
LCS01	Q603833	METHOD	CIS-1,2-DICHLOROETHENE	20		21	ug/L	105	
LCS01	Q603833	METHOD	DICHLOROMETHANE (METHYLENE CHLORIDE)	20		20.7	ug/L	103.5	
LCS01	Q603833	METHOD	1,1-DICHLOROETHANE	20		19.8	ug/L	99	
S01	Q603833	METHOD	1,2-DICHLOROPROPANE	20		22.4	ug/L	112	
CS01	Q603833	METHOD	CIS-1,3-DICHLOROPROPENE	20		22.2	ug/L	111	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS01	Q603833	METHOD	TRANS-1,3-DICHLOROPROPENE	20		21.4	ug/L	107	
LCS01	Q603833	METHOD	ETHYL BENZENE	20		23.4	ug/L	117	
LCS01	Q603833	METHOD	STYRENE	20		22.7	ug/L	113.5	
LCS01	Q603833	METHOD	1,1,2-TRICHLOROETHANE	20		21.4	ug/L	107	
LCS01	Q603833	METHOD	1,1,1,2-TETRACHLOROETHANE	20		21.8	ug/L	109	
LCS01	Q603833	METHOD	1,1,2,2-TETRACHLOROETHANE	20		22.2	ug/L	111	
LCS01	Q603833	METHOD	TETRACHLOROETHENE	20		21.2	ug/L	106	
LCS01	Q603833	METHOD	TOLUENE	20		22.2	ug/L	111	
LCS01	Q603833	METHOD	TRICHLOROFLUOROMETHANE	20		17.9	ug/L	89.5	
SAMPLE	A393079		See Cert. of Analysis, Rep: 0						

Comments

*Q599938 * SEE G8830J.IND*
Q599940 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.
Q599941 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.
*Q601678 * SEE G8860J.IND*
*Q601680 *MSD OUT OF 12 HOURS.*
*Q602346 * SEE G8880J.IND*
Q602348 ! Advisory limits from laboratory generated data.
Q602351 MSD OUT OF 12 HOURS HOLDING TIME.
*Q603831 * SEE G8901J.IND*
Q603833 SAMPLE WAS REANALYZED IN ANOTHER RUN FOR THE MS/MSD.

Approved by: P.K. Spence

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.569	4.7
3	P	Chloromethane	0.431	0.408	5.3
4	C	VINYL CHLORIDE	0.356	0.365	2.5
5		Bromomethane	0.437	0.446	2.1
6		Chloroethane	0.267	0.263	1.5
7		Trichlorofluoromethane	1.592	1.503	5.6
8		Acrolein	0.289	0.189	34.6#
9		Diethyl Ether	0.240	0.262	9.2
		Acetone	0.130	0.068	47.7#
11	CM	1,1-DICHLOROETHENE	0.477	0.425	10.9
12		Methylene Chloride	0.507	0.458	9.7
13		Acrylonitrile	0.626	0.416	33.5#
14		Carbon Disulfide	0.911	0.823	9.7
15		Vinyl Acetate	0.215	0.191	11.2
16		trans-1,2-Dichloroethene	0.479	0.469	2.1
17	P	1,1-Dichloroethane	1.009	0.986	2.3
18		Methyl-t-butyl Ether	0.875	0.968	10.6
19		Diispropyl Ether	2.050	2.146	4.7
20		2-Butanone	0.157	0.143	8.9
21		cis-1,2-Dichloroethene	0.521	0.519	0.4
22	C	CHLOROFORM	1.008	1.023	1.5
23		Bromochloromethane	0.281	0.272	3.2
24		2,2-Dichloropropane	0.825	0.893	8.2
25		Tetrahyrofuran	0.211	0.201	4.7
26		1,1,1-Trichloroethane	1.199	1.321	10.2
27		Iodomethane	0.791	0.737	6.8
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.578	1.7
30	S	1,2-Dichloroethane-d4	0.524	0.521	0.6
31		Carbon Tetrachloride	0.964	0.996	3.3
32		1,2-Dichloroethane	0.643	0.644	0.2
33	M	Benzene	0.997	0.968	2.9
34	M	Trichloroethene	0.473	0.449	5.1
	C	1,2-DICHLOROPROPANE	0.535	0.529	1.1
36		Bromodichloromethane	0.933	0.917	1.7
37		Dibromomethane	0.442	0.417	5.7
38		4-Methyl-2-Pentanone	0.585	0.501	14.4
39		2-Chloroethylvinylether	0.185	0.168	9.2

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.660	2.8
41	S	Toluene-d8	1.432	1.305	8.9
42	CM	TOLUENE	1.382	1.248	9.7
43		trans-1,3-Dichloropropene	0.635	0.600	5.5
44		1,1,2-Trichloroethane	0.467	0.434	7.1
45		1,2-Dibromoethane	0.749	0.681	9.1
46	S	4-Bromofluorobenzene	0.981	0.906	7.6
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.288	13.5
49		1,3-Dichloropropane	0.828	0.833	0.6
50		Tetrachloroethene	0.778	0.733	5.8
51		Dibromochloromethane	0.969	0.984	1.5
52	PM	Chlorobenzene	1.461	1.416	3.1
53		1,1,1,2-Tetrachloroethane	0.759	0.751	1.1
54	C	ETHYL BENZENE	0.712	0.692	2.8
55		m,p-Xylene	0.839	0.814	3.0
56		o-Xylene	0.759	0.764	0.7
57		Styrene	1.456	1.401	3.8
58	P	Bromoform	0.678	0.656	3.2
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	5.596	0.4
61		trans-1,4-Dichloro-2-butene	0.522	0.505	3.3
62	P	1,1,2,2-Tetrachloroethane	1.859	1.790	3.7
63		Bromobenzene	3.168	3.293	3.9
64		1,2,3-Trichloropropane	0.649	0.550	15.3
65		n-Propylbenzene	0.647	0.679	4.9
66		1,3,5-Trimethylbenzene	3.420	2.928	14.4
67		2-Chlorotoluene	1.019	1.050	3.0
68		4-Chlorotoluene	1.149	1.204	4.8
69		t-Butylbenzene	4.251	4.272	0.5
70		1,2,4-Trimethylbenzene	3.247	2.492	23.3#
71		sec-Butylbenzene	6.259	6.256	0.0
72		p-Isopropyltoluene	3.844	3.416	11.1
		1,3-Dichlorobenzene	2.133	2.115	0.8
74		1,2,3-Trimethylbenzene	3.257	2.341	28.1#
75		1,4-Dichlorobenzene	2.081	1.996	4.1
76		n-Butylbenzene	1.920	1.540	19.8
77		1,2-Dichlorobenzene	1.962	1.891	3.6
78		1,2-Dibromo-3-chloropropane	0.390	0.354	9.2

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.447	47.9#
80	Naphthalene	0.882	0.576	34.7#
81	Hexachlorobutadiene	0.901	0.859	4.7
82	1,2,3-Trichlorobenzene	0.656	0.358	45.4#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8849j
Analysis Date/Time:11/22/96 8:21

Analyte List	Result	DL	Units
Benzene.....	BDL	5	uG/L
Bromobenzene.....	BDL	5	uG/L
Bromochloromethane.....	BDL	5	uG/L
Bromodichloromethane.....	BDL	5	uG/L
Bromoform.....	BDL	5	uG/L
Bromomethane.....	BDL	5	uG/L
n-Butylbenzene.....	BDL	5	uG/L
tert-Butylbenzene.....	BDL	5	uG/L
Carbon tetrachloride.....	BDL	5	uG/L
Chlorobenzene.....	BDL	5	uG/L
Chloroethane.....	BDL	5	uG/L
Chloroform.....	BDL	5	uG/L
Chloromethane.....	BDL	5	uG/L
2-Chlorotoluene.....	BDL	5	uG/L
4-Chlorotoluene.....	BDL	5	uG/L
Dibromochloromethane.....	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane....	BDL	5	uG/L
1,2-Dibromoethane.....	BDL	5	uG/L
Dibromomethane.....	BDL	5	uG/L
1,2-Dichlorobenzene.....	BDL	5	uG/L
1,3-Dichlorobenzene.....	BDL	5	uG/L
1,4-Dichlorobenzene.....	BDL	5	uG/L
Dichlorodifluoromethane.....	BDL	5	uG/L
1,1-Dichloroethane.....	BDL	5	uG/L
1,2-Dichloroethane.....	BDL	5	uG/L
1,1-Dichloroethene.....	BDL	5	uG/L
cis-1,2-Dichloroethene.....	BDL	5	uG/L
trans-1,2-Dichloroethene.....	BDL	5	uG/L
1,2-Dichloropropane.....	BDL	5	uG/L
1,3-Dichloropropane.....	BDL	5	uG/L
2,2-Dichloropropane.....	BDL	5	uG/L
1,1-Dichloropropene.....	BDL	5	uG/L
cis-1,3-Dichloropropene.....	BDL	5	uG/L
trans-1,3-Dichloropropene.....	BDL	5	uG/L
Ethyl Benzene.....	BDL	5	uG/L
Hexachlorobutadiene.....	BDL	5	uG/L
Isopropylbenzene.....	BDL	5	uG/L
Dichloromethane.....	BDL	5	uG/L
Naphthalene.....	BDL	5	uG/L
N-Propylbenzene.....	BDL	5	uG/L
Styrene.....	BDL	5	uG/L
1,1,1,2-Tetrachloroethane.....	BDL	5	uG/L
1,1,2,2-Tetrachloroethane.....	BDL	5	uG/L
Tetrachloroethane.....	BDL	5	uG/L
Toluene.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trichlorobenzene.....	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8849j
Analysis Date/Time:11/22/96 8:21

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	119	% Recovery
Toluene-d8.....	93	% Recovery
4-Bromofluorobenzene.....	101	% Recovery

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.615	3.0
3	P	Chloromethane	0.431	0.451	4.6
4	C	VINYL CHLORIDE	0.356	0.413	16.0
5		Bromomethane	0.437	0.477	9.2
6		Chloroethane	0.267	0.300	12.4
7		Trichlorofluoromethane	1.592	1.576	1.0
8		Acrolein	0.289	0.113	60.9#
9		Diethyl Ether	0.240	0.287	19.6
10		Acetone	0.130	0.086	33.8#
11	CM	1,1-DICHLOROETHENE	0.477	0.459	3.8
12		Methylene Chloride	0.507	0.525	3.6
13		Acrylonitrile	0.626	0.271	56.7#
14		Carbon Disulfide	0.911	0.902	1.0
15		Vinyl Acetate	0.215	0.225	4.7
16		trans-1,2-Dichloroethene	0.479	0.493	2.9
17	P	1,1-Dichloroethane	1.009	1.068	5.8
18		Methyl-t-butyl Ether	0.875	1.065	21.7#
19		Diispropyl Ether	2.050	2.442	19.1
20		2-Butanone	0.157	0.090	42.7#
21		cis-1,2-Dichloroethene	0.521	0.554	6.3
22	C	CHLOROFORM	1.008	1.112	10.3
23		Bromochloromethane	0.281	0.292	3.9
24		2,2-Dichloropropane	0.825	0.970	17.6
25		Tetrahyrofuran	0.211	0.229	8.5
26		1,1,1-Trichloroethane	1.199	1.427	19.0
27		Iodomethane	0.791	0.818	3.4
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.641	9.0
30	S	1,2-Dichloroethane-d4	0.524	0.512	2.3
31		Carbon Tetrachloride	0.964	1.046	8.5
32		1,2-Dichloroethane	0.643	0.693	7.8
33	M	Benzene	0.997	1.086	8.9
34	M	Trichloroethene	0.473	0.496	4.9
35	C	1,2-DICHLOROPROPANE	0.535	0.586	9.5
36		Bromodichloromethane	0.933	0.998	7.0
37		Dibromomethane	0.442	0.460	4.1
38		4-Methyl-2-Pentanone	0.585	0.437	25.3#
39		2-Chloroethylvinylether	0.185	0.204	10.3

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.757	11.5
41	S	Toluene-d8	1.432	1.360	5.0
42	CM	TOLUENE	1.382	1.411	2.1
43		trans-1,3-Dichloropropene	0.635	0.681	7.2
44		1,1,2-Trichloroethane	0.467	0.498	6.6
45		1,2-Dibromoethane	0.749	0.763	1.9
46	S	4-Bromofluorobenzene	0.981	0.964	1.7
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.340	2.1
49		1,3-Dichloropropane	0.828	0.926	11.8
50		Tetrachloroethene	0.778	0.778	0.0
51		Dibromochloromethane	0.969	1.043	7.6
52	PM	Chlorobenzene	1.461	1.540	5.4
53		1,1,1,2-Tetrachloroethane	0.759	0.819	7.9
54	C	ETHYL BENZENE	0.712	0.770	8.1
55		m,p-Xylene	0.839	0.904	7.7
56		o-Xylene	0.759	0.852	12.3
57		Styrene	1.456	1.598	9.8
58	P	Bromoform	0.678	0.718	5.9
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	6.148	10.3
61		trans-1,4-Dichloro-2-butene	0.522	0.577	10.5
62	P	1,1,2,2-Tetrachloroethane	1.859	2.059	10.8
63		Bromobenzene	3.168	2.908	8.2
64		1,2,3-Trichloropropane	0.649	0.693	6.8
65		n-Propylbenzene	0.647	0.766	18.4
66		1,3,5-Trimethylbenzene	3.420	2.877	15.9
67		2-Chlorotoluene	1.019	1.303	27.9#
68		4-Chlorotoluene	1.149	1.206	5.0
69		t-Butylbenzene	4.251	4.539	6.8
70		1,2,4-Trimethylbenzene	3.247	2.364	27.2#
71		sec-Butylbenzene	6.259	6.723	7.4
72		p-Isopropyltoluene	3.844	3.445	10.4
		1,3-Dichlorobenzene	2.133	2.329	9.2
74		1,2,3-Trimethylbenzene	3.257	2.200	32.5#
75		1,4-Dichlorobenzene	2.081	2.222	6.8
76		n-Butylbenzene	1.920	1.486	22.6#
77		1,2-Dichlorobenzene	1.962	2.049	4.4
78		1,2-Dibromo-3-chloropropane	0.390	0.409	4.9

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
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cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.382	55.5#
80	Naphthalene	0.882	0.463	47.5#
81	Hexachlorobutadiene	0.901	0.903	0.2
82	1,2,3-Trichlorobenzene	0.656	0.313	52.3#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8861j
Analysis Date/Time:11/23/96 7:07

Analyte List	Result	DL	Units
Benzene	BDL	5	uG/L
Bromobenzene	BDL	5	uG/L
Bromochloromethane	BDL	5	uG/L
Bromodichloromethane	BDL	5	uG/L
Bromoform	BDL	5	uG/L
Bromomethane	BDL	5	uG/L
n-Butylbenzene	BDL	5	uG/L
tert-Butylbenzene	BDL	5	uG/L
Carbon tetrachloride	BDL	5	uG/L
Chlorobenzene	BDL	5	uG/L
Chloroethane	BDL	5	uG/L
Chloroform	BDL	5	uG/L
Chloromethane	BDL	5	uG/L
2-Chlorotoluene	BDL	5	uG/L
4-Chlorotoluene	BDL	5	uG/L
Dibromochloromethane	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane	BDL	5	uG/L
1,2-Dibromoethane	BDL	5	uG/L
Dibromomethane	BDL	5	uG/L
1,2-Dichlorobenzene	BDL	5	uG/L
1,3-Dichlorobenzene	BDL	5	uG/L
1,4-Dichlorobenzene	BDL	5	uG/L
Dichlorodifluoromethane	BDL	5	uG/L
1,1-Dichloroethane	BDL	5	uG/L
1,2-Dichloroethane	BDL	5	uG/L
1,1-Dichloroethene	BDL	5	uG/L
cis-1,2-Dichloroethene	BDL	5	uG/L
trans-1,2-Dichloroethene	BDL	5	uG/L
1,2-Dichloropropane	BDL	5	uG/L
1,3-Dichloropropane	BDL	5	uG/L
2,2-Dichloropropane	BDL	5	uG/L
1,1-Dichloropropene	BDL	5	uG/L
cis-1,3-Dichloropropene	BDL	5	uG/L
trans-1,3-Dichloropropene	BDL	5	uG/L
Ethyl Benzene	BDL	5	uG/L
Hexachlorobutadiene	BDL	5	uG/L
Isopropylbenzene	BDL	5	uG/L
Dichloromethane	BDL	5	uG/L
Naphthalene	BDL	5	uG/L
N-Propylbenzene	BDL	5	uG/L
Styrene	BDL	5	uG/L
1,1,1,2-Tetrachloroethane	BDL	5	uG/L
1,1,2,2-Tetrachloroethane	BDL	5	uG/L
Tetrachloroethane	BDL	5	uG/L
Toluene	BDL	5	uG/L
1,2,3-Trichloropropane	BDL	5	uG/L
1,2,4-Trichlorobenzene	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8861j
Analysis Date/Time:11/23/96 7:07

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	114	% Recovery
Toluene-d8.....	94	% Recovery
4-Bromofluorobenzene.....	97	% Recovery

Continuing Calibration Report

Data File : C:\I112496\8880J.D
Acq On : 24 Nov 96 3:26 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/24/96

Vial: 15
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.531	11.1
3	P	Chloromethane	0.431	0.437	1.4
4	C	VINYL CHLORIDE	0.356	0.399	12.1
5		Bromomethane	0.437	0.490	12.1
6		Chloroethane	0.267	0.283	6.0
7		Trichlorofluoromethane	1.592	1.313	17.5
8		Acrolein	0.289	0.047	83.7#
9		Diethyl Ether	0.240	0.228	5.0
10		Acetone	0.130	0.069	46.9#
11	CM	1,1-DICHLOROETHENE	0.477	0.402	15.7
12		Methylene Chloride	0.507	0.499	1.6
13		Acrylonitrile	0.626	0.123	80.4#
14		Carbon Disulfide	0.911	0.816	10.4
15		Vinyl Acetate	0.215	0.178	17.2
16		trans-1,2-Dichloroethene	0.479	0.417	12.9
17	P	1,1-Dichloroethane	1.009	0.880	12.8
18		Methyl-t-butyl Ether	0.875	0.844	3.5
19		Diispropyl Ether	2.050	2.273	10.9
20		2-Butanone	0.157	0.136	13.4
21		cis-1,2-Dichloroethene	0.521	0.467	10.4
22	C	CHLOROFORM	1.008	0.887	12.0
23		Bromochloromethane	0.281	0.252	10.3
24		2,2-Dichloropropane	0.825	0.782	5.2
25		Tetrahyrofuran	0.211	0.097	54.0#
26		1,1,1-Trichloroethane	1.199	1.152	3.9
27		Iodomethane	0.791	0.816	3.2
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.582	1.0
30	S	1,2-Dichloroethane-d4	0.524	0.428	18.3
31		Carbon Tetrachloride	0.964	0.887	8.0
32		1,2-Dichloroethane	0.643	0.564	12.3
33	M	Benzene	0.997	1.013	1.6
34	M	Trichloroethene	0.473	0.465	1.7
35	C	1,2-DICHLOROPROPANE	0.535	0.548	2.4
36		Bromodichloromethane	0.933	0.860	7.8
37		Dibromomethane	0.442	0.395	10.6
38		4-Methyl-2-Pentanone	0.585	0.576	1.5
39		2-Chloroethylvinylether	0.185	0.182	1.6

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112496\8880J.D
Acq On : 24 Nov 96 3:26 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/24/96

Vial: 15
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.697	2.7
41	S	Toluene-d8	1.432	1.410	1.5
42	CM	TOLUENE	1.382	1.448	4.8
43		trans-1,3-Dichloropropene	0.635	0.645	1.6
44		1,1,2-Trichloroethane	0.467	0.484	3.6
45		1,2-Dibromoethane	0.749	0.750	0.1
46	S	4-Bromofluorobenzene	0.981	0.959	2.2
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
[illegible]		2-Hexanone	0.333	0.328	1.5
[illegible]		1,3-Dichloropropane	0.828	0.866	4.6
50		Tetrachloroethene	0.778	0.793	1.9
51		Dibromochloromethane	0.969	0.958	1.1
52	PM	Chlorobenzene	1.461	1.517	3.8
53		1,1,1,2-Tetrachloroethane	0.759	0.764	0.7
54	C	ETHYL BENZENE	0.712	0.721	1.3
55		m,p-Xylene	0.839	0.869	3.6
56		o-Xylene	0.759	0.813	7.1
57		Styrene	1.456	1.519	4.3
58	P	Bromoform	0.678	0.668	1.5
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	5.396	3.2
61		trans-1,4-Dichloro-2-butene	0.522	0.510	2.3
62	P	1,1,2,2-Tetrachloroethane	1.859	1.839	1.1
63		Bromobenzene	3.168	2.434	23.2#
64		1,2,3-Trichloropropane	0.649	0.607	6.5
65		n-Propylbenzene	0.647	0.685	5.9
66		1,3,5-Trimethylbenzene	3.420	2.972	13.1
67		2-Chlorotoluene	1.019	1.059	3.9
68		4-Chlorotoluene	1.149	1.210	5.3
69		t-Butylbenzene	4.251	4.182	1.6
70		1,2,4-Trimethylbenzene	3.247	2.604	19.8
71		sec-Butylbenzene	6.259	6.590	5.3
72		p-Isopropyltoluene	3.844	3.689	4.0
		1,3-Dichlorobenzene	2.133	2.229	4.5
74		1,2,3-Trimethylbenzene	3.257	2.478	23.9#
75		1,4-Dichlorobenzene	2.081	2.173	4.4
76		n-Butylbenzene	1.920	1.641	14.5
77		1,2-Dichlorobenzene	1.962	2.017	2.8
78		1,2-Dibromo-3-chloropropane	0.390	0.358	8.2

Continuing Calibration Report

Data File : C:\I112496\8880J.D
Acq On : 24 Nov 96 3:26 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/24/96

Vial: 15
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.445	48.1#
80	Naphthalene	0.882	0.456	48.3#
81	Hexachlorobutadiene	0.901	1.006	11.7
82	1,2,3-Trichlorobenzene	0.656	0.341	48.0#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8896j
Analysis Date/Time:11/24/96 17:15

Analyte List	Result	DL	Units
Benzene	BDL	5	uG/L
Bromobenzene	BDL	5	uG/L
Bromochloromethane	BDL	5	uG/L
Bromodichloromethane	BDL	5	uG/L
Bromoform	BDL	5	uG/L
Bromomethane	BDL	5	uG/L
n-Butylbenzene	BDL	5	uG/L
tert-Butylbenzene	BDL	5	uG/L
Carbon tetrachloride	BDL	5	uG/L
Chlorobenzene	BDL	5	uG/L
Chloroethane	BDL	5	uG/L
Chloroform	BDL	5	uG/L
Chloromethane	BDL	5	uG/L
2-Chlorotoluene	BDL	5	uG/L
4-Chlorotoluene	BDL	5	uG/L
Dibromochloromethane	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane	BDL	5	uG/L
1,2-Dibromoethane	BDL	5	uG/L
Dibromomethane	BDL	5	uG/L
1,2-Dichlorobenzene	BDL	5	uG/L
1,3-Dichlorobenzene	BDL	5	uG/L
1,4-Dichlorobenzene	BDL	5	uG/L
Dichlorodifluoromethane	BDL	5	uG/L
1,1-Dichloroethane	BDL	5	uG/L
1,2-Dichloroethane	BDL	5	uG/L
1,1-Dichloroethene	BDL	5	uG/L
cis-1,2-Dichloroethene	BDL	5	uG/L
trans-1,2-Dichloroethene	BDL	5	uG/L
1,2-Dichloropropane	BDL	5	uG/L
1,3-Dichloropropane	BDL	5	uG/L
2,2-Dichloropropane	BDL	5	uG/L
1,1-Dichloropropene	BDL	5	uG/L
cis-1,3-Dichloropropene	BDL	5	uG/L
trans-1,3-Dichloropropene	BDL	5	uG/L
Ethyl Benzene	BDL	5	uG/L
Hexachlorobutadiene	BDL	5	uG/L
Isopropylbenzene	BDL	5	uG/L
Dichloromethane	BDL	5	uG/L
Naphthalene	BDL	5	uG/L
N-Propylbenzene	BDL	5	uG/L
Styrene	BDL	5	uG/L
1,1,1,2-Tetrachloroethane	BDL	5	uG/L
1,1,2,2-Tetrachloroethane	BDL	5	uG/L
Tetrachloroethane	BDL	5	uG/L
Toluene	BDL	5	uG/L
1,2,3-Trichloropropane	BDL	5	uG/L
1,2,4-Trichlorobenzene	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8896j
Analysis Date/Time:11/24/96 17:15

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	113	% Recovery
Toluene-d8.....	96	% Recovery
4-Bromofluorobenzene.....	99	% Recovery

Continuing Calibration Report

Data File : C:\I112596\8901J.D
Acq On : 25 Nov 96 7:14 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/25/96

Vial: 14
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Tue Nov 26 17:11:39 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.516	13.6
3	P	Chloromethane	0.431	0.392	9.0
4	C	VINYL CHLORIDE	0.356	0.377	5.9
5		Bromomethane	0.437	0.437	0.0
6		Chloroethane	0.267	0.259	3.0
7		Trichlorofluoromethane	1.592	1.628	2.3
8		Acrolein	0.289	0.133	54.0#
9		Diethyl Ether	0.240	0.254	5.8
		Acetone	0.130	0.141	8.5
11	CM	1,1-DICHLOROETHENE	0.477	0.451	5.5
12		Methylene Chloride	0.507	0.498	1.8
13		Acrylonitrile	0.626	0.302	51.8#
14		Carbon Disulfide	0.911	0.879	3.5
15		Vinyl Acetate	0.215	0.198	7.9
16		trans-1,2-Dichloroethene	0.479	0.506	5.6
17	P	1,1-Dichloroethane	1.009	1.077	6.7
18		Methyl-t-butyl Ether	0.875	0.941	7.5
19		Diispropyl Ether	2.050	2.307	12.5
20		2-Butanone	0.157	0.208	32.5#
21		cis-1,2-Dichloroethene	0.521	0.543	4.2
22	C	CHLOROFORM	1.008	1.081	7.2
23		Bromochloromethane	0.281	0.282	0.4
24		2,2-Dichloropropane	0.825	0.543	34.2#
25		Tetrahyrofuran	0.211	0.205	2.8
26		1,1,1-Trichloroethane	1.199	1.354	12.9
27		Iodomethane	0.791	0.793	0.3
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.601	2.2
30	S	1,2-Dichloroethane-d4	0.524	0.544	3.8
31		Carbon Tetrachloride	0.964	0.964	0.0
32		1,2-Dichloroethane	0.643	0.658	2.3
33	M	Benzene	0.997	0.998	0.1
34	M	Trichloroethene	0.473	0.457	3.4
	C	1,2-DICHLOROPROPANE	0.535	0.535	0.0
36		Bromodichloromethane	0.933	0.942	1.0
37		Dibromomethane	0.442	0.437	1.1
38		4-Methyl-2-Pentanone	0.585	0.529	9.6
39		2-Chloroethylvinylether	0.185	0.147	20.5#

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112596\8901J.D
Acq On : 25 Nov 96 7:14 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/25/96

Vial: 14
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Tue Nov 26 17:11:39 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.702	3.4
41	S	Toluene-d8	1.432	1.451	1.3
42	CM	TOLUENE	1.382	1.372	0.7
43		trans-1,3-Dichloropropene	0.635	0.644	1.4
44		1,1,2-Trichloroethane	0.467	0.467	0.0
45		1,2-Dibromoethane	0.749	0.735	1.9
46	S	4-Bromofluorobenzene	0.981	1.049	6.9
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.408	22.5#
49		1,3-Dichloropropane	0.828	0.842	1.7
50		Tetrachloroethene	0.778	0.736	5.4
51		Dibromochloromethane	0.969	0.939	3.1
52	PM	Chlorobenzene	1.461	1.431	2.1
53		1,1,1,2-Tetrachloroethane	0.759	0.747	1.6
54	C	ETHYL BENZENE	0.712	0.720	1.1
55		m,p-Xylene	0.839	0.855	1.9
56		o-Xylene	0.759	0.811	6.9
57		Styrene	1.456	1.514	4.0
58	P	Bromoform	0.678	0.661	2.5
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	4.978	10.7
61		trans-1,4-Dichloro-2-butene	0.522	0.464	11.1
62	P	1,1,2,2-Tetrachloroethane	1.859	1.685	9.4
63		Bromobenzene	3.168	2.246	29.1#
64		1,2,3-Trichloropropane	0.649	0.540	16.8
65		n-Propylbenzene	0.647	0.618	4.5
66		1,3,5-Trimethylbenzene	3.420	2.972	13.1
67		2-Chlorotoluene	1.019	1.042	2.3
68		4-Chlorotoluene	1.149	1.058	7.9
69		t-Butylbenzene	4.251	3.879	8.8
70		1,2,4-Trimethylbenzene	3.247	2.661	18.0
71		sec-Butylbenzene	6.259	5.962	4.7
72		p-Isopropyltoluene	3.844	3.435	10.6
		1,3-Dichlorobenzene	2.133	2.095	1.8
74		1,2,3-Trimethylbenzene	3.257	2.597	20.3#
75		1,4-Dichlorobenzene	2.081	2.060	1.0
76		n-Butylbenzene	1.920	1.684	12.3
77		1,2-Dichlorobenzene	1.962	1.913	2.5
78		1,2-Dibromo-3-chloropropane	0.390	0.342	12.3

Continuing Calibration Report

Data File : C:\I112596\8901J.D
Acq On : 25 Nov 96 7:14 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/25/96

Vial: 14
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Tue Nov 26 17:11:39 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.549	36.0#
80	Naphthalene	0.882	0.505	42.7#
81	Hexachlorobutadiene	0.901	0.946	5.0
82	1,2,3-Trichlorobenzene	0.656	0.422	35.7#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8902j
Analysis Date/Time:11/25/96 8:04

Analyte List	Result	DL	Units
Benzene.....	BDL	5	uG/L
Bromobenzene.....	BDL	5	uG/L
Bromochloromethane.....	BDL	5	uG/L
Bromodichloromethane.....	BDL	5	uG/L
Bromoform.....	BDL	5	uG/L
Bromomethane.....	BDL	5	uG/L
n-Butylbenzene.....	BDL	5	uG/L
tert-Butylbenzene.....	BDL	5	uG/L
Carbon tetrachloride.....	BDL	5	uG/L
Chlorobenzene.....	BDL	5	uG/L
Chloroethane.....	BDL	5	uG/L
Chloroform.....	BDL	5	uG/L
Chloromethane.....	BDL	5	uG/L
2-Chlorotoluene.....	BDL	5	uG/L
4-Chlorotoluene.....	BDL	5	uG/L
Dibromochloromethane.....	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane....	BDL	5	uG/L
1,2-Dibromoethane.....	BDL	5	uG/L
Dibromomethane.....	BDL	5	uG/L
1,2-Dichlorobenzene.....	BDL	5	uG/L
1,3-Dichlorobenzene.....	BDL	5	uG/L
1,4-Dichlorobenzene.....	BDL	5	uG/L
Dichlorodifluoromethane.....	BDL	5	uG/L
1,1-Dichloroethane.....	BDL	5	uG/L
1,2-Dichloroethane.....	BDL	5	uG/L
1,1-Dichloroethene.....	BDL	5	uG/L
cis-1,2-Dichloroethene.....	BDL	5	uG/L
trans-1,2-Dichloroethene.....	BDL	5	uG/L
1,2-Dichloropropane.....	BDL	5	uG/L
1,3-Dichloropropane.....	BDL	5	uG/L
2,2-Dichloropropane.....	BDL	5	uG/L
1,1-Dichloropropene.....	BDL	5	uG/L
cis-1,3-Dichloropropene.....	BDL	5	uG/L
trans-1,3-Dichloropropene.....	BDL	5	uG/L
Ethyl Benzene.....	BDL	5	uG/L
Hexachlorobutadiene.....	BDL	5	uG/L
Isopropylbenzene.....	BDL	5	uG/L
Dichloromethane.....	7	5	uG/L
Naphthalene.....	BDL	5	uG/L
N-Propylbenzene.....	BDL	5	uG/L
Styrene.....	BDL	5	uG/L
1,1,1,2-Tetrachloroethane.....	BDL	5	uG/L
1,1,2,2-Tetrachloroethane.....	BDL	5	uG/L
Tetrachloroethane.....	BDL	5	uG/L
Toluene.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trichlorobenzene.....	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8902j
Analysis Date/Time:11/25/96 8:04

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	113	% Recovery
Toluene-d8.....	98	% Recovery
4-Bromofluorobenzene.....	100	% Recovery

HERITAGE ENVIRONMENTAL SERVICES

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	RQL	Units	% Rec	RPD
SPI02	Q592004	A373080	ANTIMONY	0	.5	.457		MG/L	91.4	
DPS02	Q592005	A373080	ANTIMONY	0	.5	.442		MG/L	88.4	3.3
SPI02	Q592004	A373080	ARSENIC	0	2	2.03		MG/L	101.5	
DPS02	Q592005	A373080	ARSENIC	0	2	1.96		MG/L	98	3.5
SPI02	Q592004	A373080	BERYLLIUM	0	.05	.0489		MG/L	97.8	
DPS02	Q592005	A373080	BERYLLIUM	0	.05	.0472		MG/L	94.4	3.5
SPI02	Q592004	A373080	CADMIUM	0	.05	.0458		MG/L	91.6	
DPS02	Q592005	A373080	CADMIUM	0	.05	.0446		MG/L	89.2	2.7
SPI02	Q592004	A373080	CHROMIUM	0	.2	.179		MG/L	89.5	
DPS02	Q592005	A373080	CHROMIUM	0	.2	.173		MG/L	86.5	3.4
SPI02	Q592004	A373080	COBALT	0	.5	.432		MG/L	86.4	
DPS02	Q592005	A373080	COBALT	0	.5	.418		MG/L	83.6	3.3
SPI02	Q592004	A373080	LEAD	0	.5	.456		MG/L	91.2	
DPS02	Q592005	A373080	LEAD	0	.5	.441		MG/L	88.2	3.3
SPI02	Q592004	A373080	MANGANESE	0	.5	.761		MG/L	152.2	
DPS02	Q592005	A373080	MANGANESE	0	.5	.738		MG/L	147.6	3.1
SPI02	Q592004	A373080	SELENIUM	0	2	2.09		MG/L	104.5	
DPS02	Q592005	A373080	SELENIUM	0	2	2.04		MG/L	102	2.4
SPI02	Q592004	A373080	THALLIUM	0	3	2.86		MG/L	95.3	
DPS02	Q592005	A373080	THALLIUM	0	3	2.78		MG/L	92.7	2.8
SPI02	Q592004	A373080	VANADIUM	0	.5	.495		MG/L	99	
DPS02	Q592005	A373080	VANADIUM	0	.5	.478		MG/L	95.6	3.5

HERITAGE ENVIRONMENTAL SERVICES

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	RQL	Units	% Rec	RPD
02	Q592181	A393071	ANTIMONY	0	.5	0.518		MG/L	104	6
DPS02	Q592181	A393071	ARSENIC	0.0105	2	2.04		MG/L	102	6
DPS02	Q592181	A393071	BERYLLIUM	0	.05	0.0492		MG/L	98	7
DPS02	Q592181	A393071	CADMIUM	0	.05	0.0471		MG/L	94	6
DPS02	Q592181	A393071	CHROMIUM	0.00156	.2	0.185		MG/L	92	7
DPS02	Q592181	A393071	COBALT	0	.5	0.453		MG/L	91	6
DPS02	Q592181	A393071	LEAD	0	.5	0.470		MG/L	94	6
DPS02	Q592181	A393071	SELENIUM	0	2	2.14		MG/L	107	6
DPS02	Q592181	A393071	THALLIUM	0	3	2.94		MG/L	98	6
DPS02	Q592181	A393071	VANADIUM	0	.5	0.487		MG/L	97	7

QUALITY ASSURANCE REPORT

Service Location
HERITAGE ENVIRONMENTAL SERVICES, INC.
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Report Date
09-DEC-96

Submitter
BFI WASTE SYSTEMS
JEFF JENKINS
2211 GLENVIEW DRIVE
EVANSVILLE, IN 47720

Client ID	Lab ID	Date-Time Sampled	Date Received	Date Complete	Description
MW-13D	A392824	12-NOV-96 09:22	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-13D (DUP)	A392825	12-NOV-96 09:22	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-14D	A392826	12-NOV-96 10:55	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-10R	A392827	12-NOV-96 11:20	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-11R	A392828	12-NOV-96 12:00	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-14R	A392829	12-NOV-96 13:15	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW-13R	A392830	12-NOV-96 15:20	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
FIELD BLANK	A392831	12-NOV-96 16:20	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
MW 12I	A392832	12-NOV-96 16:32	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER
TRIP BLANK	A392833	12-NOV-96	13-NOV-96	05-DEC-96	DESCRIPTION: GROUNDWATER

HERITAGE ENVIRONMENTAL SERVICES, INC.

AMMONIA NITROGEN EPA 350.3 G203.4

Prep: AMMONIA DISTILLATION EPA 350.2

Run: R307323 Analyst.: C PEREGRINE Run Date...: 20-NOV-96
PREP Reviewer: B SHRAKE Review Date: 21-NOV-96

QC Type	Lab ID	Source	Anal Run
LFB02	Q596882		R307318
SPI02	Q596885	A392824	R307318
DPS02	Q596886	A392824	R307318
DUP02	Q596887	A392825	R307318
SAMPLE	A392824	Rep: 0	R307318
SAMPLE	A392825	Rep: 0	R307318
SAMPLE	A392826	Rep: 0	R307318
SAMPLE	A392827	Rep: 0	R307318
SAMPLE	A392828	Rep: 0	R307318
SAMPLE	A392829	Rep: 0	R307318
SAMPLE	A392830	Rep: 0	R307318
SAMPLE	A392831	Rep: 0	R307318
SAMPLE	A392832	Rep: 0	R307318
SAMPLE	A392833	Rep: 0	R307318
BLA02	Q596891		R307318
LFB02	Q596892		R307318

Run: R307318 Analyst.: C PEREGRINE Run Date...: 20-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 21-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB02	Q596882		NITROGEN, AMMONIA	5		4.85	mg/L	97	
ICV01	Q596883		NITROGEN, AMMONIA	1.55		1.53	mg/L	98.7	
CCL01	Q596884		NITROGEN, AMMONIA	0.1		0.105	mg/L	105	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SPI02	Q596885	A392824	NITROGEN, AMMONIA	0.7	2.5	3.29	mg/L	103.6	
DPS02	Q596886	A392824	NITROGEN, AMMONIA	0.7	2.5	3.29	mg/L	103.6	0
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
DUP02	Q596887	A392825	NITROGEN, AMMONIA	1.2		1.3	mg/L		8
CCV	Q596888		NITROGEN, AMMONIA	1		0.997	mg/L	99.7	
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
CCV	Q596889		NITROGEN, AMMONIA	1		0.997	mg/L	99.7	
BLA01	Q596890		NITROGEN, AMMONIA			0.0502	mg/L		
BLA02	Q596891		NITROGEN, AMMONIA			0.0926	mg/L		
LFB02	Q596892		NITROGEN, AMMONIA	5		5.44	mg/L	108.8	

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 G310.2

Run: R307200 Analyst.: M ADKINS Run Date...: 18-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q596060		CHLORIDE	12		11.7	mg/L	97.5	
CCV	Q596064		CHLORIDE	12.5		11.5	mg/L	92	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q596065		CHLORIDE			< 0.1	mg/L		
MPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
CCV	Q596066		CHLORIDE	1.25		1.23	mg/L	98.4	
CCV	Q596067		CHLORIDE	12.5		11.6	mg/L	92.8	
BLA01	Q596068		CHLORIDE			< 0.1	mg/L		
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
SPI01	Q596077	A393069	CHLORIDE	13.8	2.5	16.3	mg/L	100	
DPS01	Q596078	A393069	CHLORIDE	13.8	2.5	16.3	mg/L	100	0
CCV	Q596079		CHLORIDE	1.25		1.24	mg/L	99.2	
BLA01	Q596081		CHLORIDE			< 0.1	mg/L		

Run: R307560 Analyst.: M ADKINS Run Date...: 19-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

ICV01	Q598730		CHLORIDE	12		11.7	mg/L	97.5	
CCV	Q598747		CHLORIDE	12.5		11.5	mg/L	92	
BLA01	Q598748		CHLORIDE			< 0.1	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SPI01	Q598749	A392825	CHLORIDE	24.7	5	29.6	mg/L	98	
DPS01	Q598750	A392825	CHLORIDE	24.7	5	29.6	mg/L	98	0
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
CCV	Q598751		CHLORIDE	1.25		1.22	mg/L	97.6	
BLA01	Q598755		CHLORIDE			0.262	mg/L		

SULFATE BY ION CHROMATOGRAPHY SW846-9056 G310.7

Run: R307200 Analyst.: M ADKINS Run Date...: 18-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q596060		SULFATE	20		18.2	mg/L	91	
CCV	Q596064		SULFATE	25		23.3	mg/L	93.2	
BLA01	Q596065		SULFATE			< 0.1	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
CCV	Q596066		SULFATE	2.5		2.4	mg/L	96	
CCV	Q596067		SULFATE	25		23.4	mg/L	93.6	
BLA01	Q596068		SULFATE			< 0.1	mg/L		
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
SPI01	Q596077	A393069	SULFATE	0	5	5.51	mg/L	110.2	
DPS01	Q596078	A393069	SULFATE	0	5	5.53	mg/L	110.6	.4
CCV	Q596079		SULFATE	2.5		2.43	mg/L	97.2	
BLA01	Q596081		SULFATE			< 0.1	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307560 Analyst.: M ADKINS Run Date...: 19-NOV-96 Instrument: IC
ANALYTICAL Reviewer: S BROTHERTON Review Date: 20-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q598730		SULFATE	20		18.2	mg/L	91	
SPI01	Q598743	A393453	SULFATE	54.8	10	65.3	mg/L	105	
DPS01	Q598744	A393453	SULFATE	54.8	10	65.5	mg/L	107	1.9
CCV	Q598747		SULFATE	25		23.3	mg/L	93.2	
BLA01	Q598748		SULFATE			< 0.1	mg/L		
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
CCV	Q598751		SULFATE	2.5		2.38	mg/L	95.2	
BLA01	Q598755		SULFATE			< 0.1	mg/L		

DISSOLVED SOLIDS EPA 160.1 G402.7

Run: R307032 Analyst.: C ROBISON Run Date...: 14-NOV-96
ANALYTICAL Reviewer: K FULLMER Review Date: 19-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q594626		SOLIDS			10	mg/L		
LCS01	Q594627		SOLIDS	684		683	mg/L	99.9	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
DUP01	Q594631	A392824	SOLIDS	400		400	mg/L		0
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
DUP01	Q594632	A392825	SOLIDS	400		400	mg/L		0
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SPI01	Q594633	A392830	SOLIDS	200	250	457	mg/L	102.8	
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
LCS01	Q594634		SOLIDS	684		687	mg/L	100.4	
BLA01	Q594635		SOLIDS			2	mg/L		

TOTAL SUSPENDED SOLIDS EPA 160.2 G403.7

Run: R306915 Analyst.: K MIXON Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q593911		SUSPENDED SOLIDS			-1	mg/L		
LCS01	Q593912		SUSPENDED SOLIDS	287		270	mg/L	94.1	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SPI01	Q593914	A392825	SUSPENDED SOLIDS	3.5	144	155	mg/L	105.2	
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
DUP01	Q593915	A392826	SUSPENDED SOLIDS	22		24	mg/L		8.7
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
DUP01	Q593916	A392827	SUSPENDED SOLIDS	28		26	mg/L		7.4
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
DUP01	Q593917	A392828	SUSPENDED SOLIDS	13		13	mg/L		0
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
DUP01	Q593918	A392829	SUSPENDED SOLIDS	16		18	mg/L		11.8

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
IPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
LCS01	Q593919		SUSPENDED SOLIDS	211		201	mg/L	95.3	
BLA01	Q593920		SUSPENDED SOLIDS			-3	mg/L		

GROUNDWATER MONITORING WELL DATA SAS — G600.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						

FIELD TEMPERATURE EPA 170.1 — G603.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
APLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						

FIELD SPECIFIC CONDUCTANCE SW846-9050 — G604.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

OXIDATION-REDUCTION POTENTIAL SM2580B-18TH ED — G604.6

Run: R307017 Analyst.: C WRIN Run Date...: 12-NOV-96
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						

ALKALINITY TOTAL EPA 310.1 — G605.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
DUP01	Q594792	A392824	ALKALINITY	330		340	mg/L		3
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
CCV	Q594793		ALKALINITY	125		120	mg/L	96	
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
DUP01	Q594794	A392832	ALKALINITY	360		350	mg/L		2.8
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
CCV	Q594795		ALKALINITY	125		120	mg/L	96	

FIELD PH (AQUEOUS) SW846-9040A — G607.0

Run: R308474 Analyst.: C WRIN Run Date...: 12-NOV-96 Instrument: FIELD
ANALYTICAL Reviewer: G KLINGLER Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

ALKALINITY (BICARBONATE) EPA 310.1 — G610.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
CCV	Q594802		ALKALINITY	125		120	mg/L	96	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
DUP01	Q594803	A392824	ALKALINITY	330		340	mg/L		3
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
DUP01	Q594805	A393067	ALKALINITY	470		460	mg/L		2.2
DUP01	Q594808	A392832	ALKALINITY	0		BDL	mg/L		

ALKALINITY (CARBONATE) EPA 310.1 — G611.2

Run: R307033 Analyst.: K FULLMER Run Date...: 14-NOV-96
ANALYTICAL Reviewer: B SHRAKE Review Date: 18-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LFB01	Q594791		ALKALINITY	24.6		25	mg/L	101.6	
CCV	Q594802		ALKALINITY	125		120	mg/L	96	
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
DUP01	Q594807	A392824	ALKALINITY	0		BDL	mg/L		
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
DUP01	Q594808	A392832	ALKALINITY	0		BDL	mg/L		
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						

ARSENIC TRACE ICP SW846-6010A — M103.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306596 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592140	SPEX	R307150
BLA02	Q592141	NA	R307150
SPI02	Q592142	A392832	R307150
DPS02	Q592143	A392832	R307150
SAMPLE	A392824	Rep: 0	R307328
SAMPLE	A392825	Rep: 0	R307328

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392826	Rep: 0	R307328
IPLE	A392827	Rep: 0	R307328
SAMPLE	A392828	Rep: 0	R307328
SAMPLE	A392829	Rep: 0	R307328
SAMPLE	A392830	Rep: 0	R307328
SAMPLE	A392831	Rep: 0	R307328
SAMPLE	A392832	Rep: 0	R307328
SAMPLE	A392833	Rep: 0	R307328
LCS	Q592145	INORGAN	R307328
BLA02	Q592146	NA	R307328
SPI02	Q592147	A392832	R307328
DPS02	Q592148	A392832	R307328

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SAMPLE	A392824	Rep: 1	R307328
SAMPLE	A392825	Rep: 1	R307328
SAMPLE	A392826	Rep: 1	R307328
SAMPLE	A392827	Rep: 1	R307328
SAMPLE	A392828	Rep: 1	R307328
SAMPLE	A392829	Rep: 1	R307328
SAMPLE	A392830	Rep: 1	R307328
SAMPLE	A392831	Rep: 1	R307328
SAMPLE	A392832	Rep: 1	R307328
MPLE	A392833	Rep: 1	R307328
LCS	Q592155	INORGAN	R307328
BLA02	Q592156	NA	R307328
SPI02	Q592157	A392830	R307328
DPS02	Q592158	A392830	R307328

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q592141	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q592140	SPEX	ARSENIC	20		17.7	mg/L	89	
SPI02	Q592142	A392832	ARSENIC	0	2	1.91	mg/L	96	
DPS02	Q592143	A392832	ARSENIC	0	2	1.92	mg/L	96	0

Run: R307328 Analyst.: T NEED, JR. Run Date...: 20-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 21-NOV-96

ICV01	Q596972	PERKIN-	ARSENIC	0.04		0.0369	mg/L	92	
CDL01	Q596986	PERKIN-	ARSENIC	0.02		0.0175	mg/L	88	
CCV	Q596987	INORGAN	ARSENIC	0.1		0.0929	mg/L	93	
BLA01	Q596988	NA	ARSENIC			< 0.00200	mg/L		
LCS	Q592145	INORGAN	ARSENIC	0.5		0.476	mg/L	95	
BLA02	Q592146	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SPI02	Q592147	A392832	ARSENIC	0.0202	2	1.88	mg/L	93	
DPS02	Q592148	A392832	ARSENIC	0.0202	2	2.11	mg/L	105	12
MPLE	A392824		See Cert. of Analysis, Rep: 0						
MPLE	A392825		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
MPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
CCV	Q596989	INORGAN	ARSENIC	0.1		0.0929	mg/L	93	
BLA01	Q596990	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
CCV	Q596991	INORGAN	ARSENIC	0.1		0.0932	mg/L	93	
BLA01	Q596992	NA	ARSENIC			< 0.00200	mg/L		
CDL01	Q596997	PERKIN-	ARSENIC	0.02		0.0174	mg/L	87	

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

BLA02	Q592151	NA	ARSENIC			< 0.0400	mg/L		
LCS	Q592150	SPEX	ARSENIC	20		18.3	mg/L	92	

Run: R307328 Analyst.: T NEED, JR. Run Date...: 20-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 21-NOV-96

ICV01	Q596972	PERKIN-	ARSENIC	0.04		0.0369	mg/L	92	
CDL01	Q596986	PERKIN-	ARSENIC	0.02		0.0175	mg/L	88	
CCV	Q596991	INORGAN	ARSENIC	0.1		0.0932	mg/L	93	
BLA01	Q596992	NA	ARSENIC			< 0.00200	mg/L		
LCS	Q592155	INORGAN	ARSENIC	0.5		0.469	mg/L	94	
BLA02	Q592156	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592157	A392830	ARSENIC	0	2	1.90	mg/L	95	
DPS02	Q592158	A392830	ARSENIC	0	2	1.90	mg/L	95	0
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
CCV	Q596993	INORGAN	ARSENIC	0.1		0.0943	mg/L	94	
BLA01	Q596994	NA	ARSENIC			< 0.00200	mg/L		
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q596995	INORGAN	ARSENIC	0.1		0.0955	mg/L	96	
BLA01	Q596996	NA	ARSENIC			< 0.00200	mg/L		
CDL01	Q596997	PERKIN-	ARSENIC	0.02		0.0174	mg/L	87	

BARIUM ICP SW846-6010A M104.3

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306596 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592140	SPEX	R307150
BLA02	Q592141	NA	R307150
SPI02	Q592142	A392832	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
DPS02	Q592143	A392832	R307150
SAMPLE	A392824	Rep: 0	R307150
SAMPLE	A392825	Rep: 0	R307150
SAMPLE	A392826	Rep: 0	R307150
SAMPLE	A392827	Rep: 0	R307150
SAMPLE	A392828	Rep: 0	R307150
SAMPLE	A392829	Rep: 0	R307150
SAMPLE	A392830	Rep: 0	R307150
SAMPLE	A392832	Rep: 0	R307150

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595656	PERKIN	BARIUM	2.00		1.97	mg/L	99	
CDL01	Q595660	INORGAN	BARIUM	10		9.96	mg/L	100	
ICS-A	Q595661	PERKIN	BARIUM	0.500		0.470	mg/L	94	
CCV	Q595666	INORGAN	BARIUM	5.00		4.73	mg/L	95	
BLA01	Q595667	NA	BARIUM			< 0.00400	mg/L		
BLA02	Q592141	NA	BARIUM			< 0.00400	mg/L		
LCS	Q592140	SPEX	BARIUM	20.0		18.3	mg/L	92	
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SPI02	Q592142	A392832	BARIUM	0.232	2.00	2.12	mg/L	94	
DPS02	Q592143	A392832	BARIUM	0.232	2.00	2.15	mg/L	96	2
CCV	Q595668	INORGAN	BARIUM	5.00		4.71	mg/L	94	
BLA01	Q595669	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
CCV	Q595670	INORGAN	BARIUM	5.00		4.76	mg/L	95	
BLA01	Q595671	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q595673	PERKIN	BARIUM	0.500		0.456	mg/L	91	

HERITAGE ENVIRONMENTAL SERVICES, INC.

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595656	PERKIN	BARIUM	2.00		1.97	mg/L	99	
CDL01	Q595660	INORGAN	BARIUM	10		9.96	mg/L	100	
ICS-A	Q595661	PERKIN	BARIUM	0.500		0.470	mg/L	94	
CCV	Q595662	INORGAN	BARIUM	5.00		4.92	mg/L	98	
BLA01	Q595663	NA	BARIUM			< 0.00400	mg/L		
BLA02	Q592151	NA	BARIUM			< 0.00400	mg/L		
LCS	Q592150	SPEX	BARIUM	20.0		18.8	mg/L	94	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	BARIUM	0.114	2	2.07	mg/L	98	
DPS02	Q592153	A392830	BARIUM	0.114	2	2	mg/L	94	4
CCV	Q595664	INORGAN	BARIUM	5.00		4.83	mg/L	97	
BLA01	Q595665	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	BARIUM	5.00		4.73	mg/L	95	
BLA01	Q595667	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q595673	PERKIN	BARIUM	0.500		0.456	mg/L	91	

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

CADMIUM TRACE ICP SW846-6010A M108.0

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SAMPLE	A392824	Rep: 1	R307328
SAMPLE	A392825	Rep: 1	R307328
SAMPLE	A392826	Rep: 1	R307328
SAMPLE	A392827	Rep: 1	R307328
SAMPLE	A392828	Rep: 1	R307328
SAMPLE	A392829	Rep: 1	R307328
SAMPLE	A392830	Rep: 1	R307328
SAMPLE	A392831	Rep: 1	R307328
SAMPLE	A392832	Rep: 1	R307328
SAMPLE	A392833	Rep: 1	R307328
LCS	Q592155	INORGAN	R307328
BLA02	Q592156	NA	R307328
SPI02	Q592157	A392830	R307328
DPS02	Q592158	A392830	R307328

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q592151	NA	CADMIUM			0.00217	mg/L		
LCS	Q592150	SPEX	CADMIUM	0.500		0.463	mg/L	93	

Run: R307328 Analyst.: T NEED, JR. Run Date...: 20-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 21-NOV-96

ICV01	Q596972	PERKIN-	CADMIUM	0.04		0.0401	mg/L	100	
ICS-A	Q596977	PERKIN	CADMIUM	1		1.02	mg/L	102	
CDL01	Q596986	PERKIN-	CADMIUM	0.01		0.0100	mg/L	100	
CCV	Q596991	INORGAN	CADMIUM	0.1		0.0970	mg/L	97	
BLA01	Q596992	NA	CADMIUM			< 0.000400	mg/L		
LCS	Q592155	INORGAN	CADMIUM	0.5		0.470	mg/L	94	
BLA02	Q592156	NA	CADMIUM			< 0.000400	mg/L		
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592157	A392830	CADMIUM	0	0.05	0.0443	mg/L	89	
DPS02	Q592158	A392830	CADMIUM	0	0.05	0.0443	mg/L	89	1
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
CCV	Q596993	INORGAN	CADMIUM	0.1		0.0975	mg/L	98	
BLA01	Q596994	NA	CADMIUM			< 0.000400	mg/L		
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q596995	INORGAN	CADMIUM	0.1		0.0977	mg/L	98	
BLA01	Q596996	NA	CADMIUM			< 0.000400	mg/L		
CDL01	Q596997	PERKIN-	CADMIUM	0.01		0.0102	mg/L	102	
ICS-A	Q596998	PERKIN	CADMIUM	1		0.944	mg/L	94	
CCV	Q596999	INORGAN	CADMIUM	0.1		0.0967	mg/L	97	
BLA01	Q597003	NA	CADMIUM			< 0.000400	mg/L		
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						

CALCIUM ICP SW846-6010A M109.3

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3005A

Run: R306596 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592140	SPEX	R307150
BLA02	Q592141	NA	R307150
SPI02	Q592142	A392832	R307150
DPS02	Q592143	A392832	R307150
SAMPLE	A392824	Rep: 0	R307150
SAMPLE	A392825	Rep: 0	R307150
SAMPLE	A392826	Rep: 0	R307150
SAMPLE	A392827	Rep: 0	R307150
SAMPLE	A392828	Rep: 0	R307150
SAMPLE	A392829	Rep: 0	R307150
SAMPLE	A392830	Rep: 0	R307150
SAMPLE	A392831	Rep: 0	R307150
SAMPLE	A392832	Rep: 0	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392833	Rep: 0	R307150

un: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595657	SPEX	CALCIUM	20		20.2	mg/L	101	
ICS-A	Q595661	PERKIN	CALCIUM	500		462.	mg/L	92	
CCV	Q595666	INORGAN	CALCIUM	50.0		46.8	mg/L	94	
BLA01	Q595667	NA	CALCIUM			< 0.0800	mg/L		
BLA02	Q592141	NA	CALCIUM			< 0.0800	mg/L		
LCS	Q592140	SPEX	CALCIUM	100		93.1	mg/L	93	
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SPI02	Q592142	A392832	CALCIUM	67.8	100	160.	mg/L	92	
DPS02	Q592143	A392832	CALCIUM	67.8	100	166.	mg/L	98	7
CCV	Q595668	INORGAN	CALCIUM	50.0		47.1	mg/L	94	
BLA01	Q595669	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						
SAMPLE	A392825		See Cert. of Analysis, Rep: 0						
SAMPLE	A392826		See Cert. of Analysis, Rep: 0						
SAMPLE	A392827		See Cert. of Analysis, Rep: 0						
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
SAMPLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
CCV	Q595670	INORGAN	CALCIUM	50.0		47.6	mg/L	95	
BLA01	Q595671	NA	CALCIUM			< 0.0800	mg/L		
ICS-A	Q595673	PERKIN	CALCIUM	500		454.	mg/L	91	

CHROMIUM ICP SW846-6010A M110.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150
LCS	Q592155	INORGAN	R307328
BLA02	Q592156	NA	R307328
SPI02	Q592157	A392830	R307328
DPS02	Q592158	A392830	R307328

HERITAGE ENVIRONMENTAL SERVICES, INC.

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595655	PERKIN	CHROMIUM	1		0.994	mg/L	99	
CDL01	Q595660	INORGAN	CHROMIUM	10		9.99	mg/L	100	
ICS-A	Q595661	PERKIN	CHROMIUM	0.500		0.462	mg/L	92	
CCV	Q595662	INORGAN	CHROMIUM	5.00		4.91	mg/L	98	
BLA01	Q595663	NA	CHROMIUM			< 0.00400	mg/L		
BLA02	Q592151	NA	CHROMIUM			< 0.00400	mg/L		
LCS	Q592150	SPEX	CHROMIUM	2.00		1.85	mg/L	93	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	CHROMIUM	0	0.200	0.192	mg/L	96	
DPS02	Q592153	A392830	CHROMIUM	0	0.200	0.187	mg/L	94	3
CCV	Q595664	INORGAN	CHROMIUM	5.00		4.80	mg/L	96	
BLA01	Q595665	NA	CHROMIUM			< 0.00400	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	CHROMIUM	5.00		4.72	mg/L	94	
BLA01	Q595667	NA	CHROMIUM			< 0.00400	mg/L		
CDL01	Q595672	PERKIN	CHROMIUM	0.020		0.0194	mg/L	97	
ICS-A	Q595673	PERKIN	CHROMIUM	0.500		0.452	mg/L	90	

Run: R307328 Analyst.: T NEED, JR. Run Date...: 20-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 21-NOV-96

LCS	Q592155	INORGAN	CHROMIUM	0.5		0.464	mg/L	93	
BLA02	Q592156	NA	CHROMIUM			< 0.000400	mg/L		
SPI02	Q592157	A392830	CHROMIUM	0	0.2	0.169	mg/L	85	
DPS02	Q592158	A392830	CHROMIUM	0	0.2	0.169	mg/L	85	1

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

COPPER ICP SW846-6010A M112.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595655	PERKIN	COPPER	1		0.991	mg/L	99	
CDL01	Q595660	INORGAN	COPPER	10		10.1	mg/L	101	
ICS-A	Q595661	PERKIN	COPPER	0.500		0.490	mg/L	98	
CCV	Q595662	INORGAN	COPPER	5.00		5.00	mg/L	100	
BLA01	Q595663	NA	COPPER			< 0.00800	mg/L		
BLA02	Q592151	NA	COPPER			< 0.00800	mg/L		
LCS	Q592150	SPEX	COPPER	2.50		2.39	mg/L	96	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	COPPER	0	0.250	0.252	mg/L	101	
DPS02	Q592153	A392830	COPPER	0	0.250	0.244	mg/L	98	3
CCV	Q595664	INORGAN	COPPER	5.00		4.91	mg/L	98	
BLA01	Q595665	NA	COPPER			< 0.00800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	COPPER	5.00		4.82	mg/L	96	
BLA01	Q595667	NA	COPPER			< 0.00800	mg/L		
CDL01	Q595672	PERKIN	COPPER	0.050		0.0500	mg/L	100	
ICS-A	Q595673	PERKIN	COPPER	0.500		0.476	mg/L	95	

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

IRON ICP SW846-6010A M115.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595655	PERKIN	IRON	1		0.993	mg/L	99	
CDL01	Q595660	INORGAN	IRON	10		10.1	mg/L	101	
ICS-A	Q595661	PERKIN	IRON	200		179.	mg/L	90	
CCV	Q595662	INORGAN	IRON	5.00		5.03	mg/L	101	
BLA01	Q595663	NA	IRON			0.0208	mg/L		
BLA02	Q592151	NA	IRON			0.0172	mg/L		
LCS	Q592150	SPEX	IRON	10.0		9.53	mg/L	95	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	IRON	0.57	1	1.55	mg/L	98	
DPS02	Q592153	A392830	IRON	0.57	1	1.49	mg/L	92	6
CCV	Q595664	INORGAN	IRON	5.00		4.89	mg/L	98	
BLA01	Q595665	NA	IRON			< 0.0100	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	IRON	5.00		4.80	mg/L	96	
BLA01	Q595667	NA	IRON			< 0.0100	mg/L		
ICS-A	Q595673	PERKIN	IRON	200		176.	mg/L	88	

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

MAGNESIUM ICP SW846-6010A M118.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392830	Rep: 1	R307150
MPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595657	SPEX	MAGNESIUM	20		20.1	mg/L	101	
ICS-A	Q595661	PERKIN	MAGNESIUM	500		484.	mg/L	97	
CCV	Q595662	INORGAN	MAGNESIUM	50.0		49.2	mg/L	98	
BLA01	Q595663	NA	MAGNESIUM			< 0.0800	mg/L		
BLA02	Q592151	NA	MAGNESIUM			0.0976	mg/L		
LCS	Q592150	SPEX	MAGNESIUM	100		96.1	mg/L	96	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	MAGNESIUM	33	100	132	mg/L	99	
DPS02	Q592153	A392830	MAGNESIUM	33	100	130	mg/L	97	2
CCV	Q595664	INORGAN	MAGNESIUM	50.0		48.2	mg/L	96	
BLA01	Q595665	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
V	Q595666	INORGAN	MAGNESIUM	50.0		47.3	mg/L	95	
BLA01	Q595667	NA	MAGNESIUM			< 0.0800	mg/L		
ICS-A	Q595673	PERKIN	MAGNESIUM	500		477.	mg/L	95	

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

MANGANESE ICP SW846-6010A M119.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150
MPLE	A392830	Rep: 1	R307150
MPLE	A392831	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392832	Rep: 1	R307150
PLE	A392833	Rep: 1	R307150
LCS	Q592155	INORGAN	R307328
BLA02	Q592156	NA	R307328
SPI02	Q592157	A392830	R307328
DPS02	Q592158	A392830	R307328

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595655	PERKIN	MANGANESE	1		0.996	mg/L	100	
CDL01	Q595660	INORGAN	MANGANESE	10		9.97	mg/L	100	
ICS-A	Q595661	PERKIN	MANGANESE	0.500		0.452	mg/L	90	
CCV	Q595662	INORGAN	MANGANESE	5.00		4.90	mg/L	98	
BLA01	Q595663	NA	MANGANESE			< 0.00400	mg/L		
BLA02	Q592151	NA	MANGANESE			< 0.00400	mg/L		
LCS	Q592150	SPEX	MANGANESE	5.00		4.65	mg/L	93	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	MANGANESE	2	0.5	2.43	mg/L	86	
DPS02	Q592153	A392830	MANGANESE	2	0.5	* 2.36	mg/L		
CCV	Q595664	INORGAN	MANGANESE	5.00		4.79	mg/L	96	
BLA01	Q595665	NA	MANGANESE			< 0.00400	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
PLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	MANGANESE	5.00		4.72	mg/L	94	
BLA01	Q595667	NA	MANGANESE			< 0.00400	mg/L		
CDL01	Q595672	PERKIN	MANGANESE	0.030		0.0293	mg/L	98	
ICS-A	Q595673	PERKIN	MANGANESE	0.500		0.441	mg/L	88	

Run: R307328 Analyst.: T NEED, JR. Run Date...: 20-NOV-96 Instrument: TRACE ICP
ANALYTICAL Reviewer: S O'NEAL Review Date: 21-NOV-96

LCS	Q592155	INORGAN	MANGANESE	0.5		0.478	mg/L	96	
BLA02	Q592156	NA	MANGANESE			< 0.000400	mg/L		
SPI02	Q592157	A392830	MANGANESE	1.80	0.5	2.19	mg/L	78	
DPS02	Q592158	A392830	MANGANESE	1.8	0.5	2.2	mg/L	80	3

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

POTASSIUM ICP SW846-6010A M126.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
	Q592150	SPEX	R307150
A02	Q592151	NA	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SPI02	Q592152	A392830	R307150
;02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
SAMPLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595656	PERKIN	POTASSIUM	20.0		19.5	mg/L	98	
ICV01	Q595657	SPEX	POTASSIUM	20		19.7	mg/L	99	
CCV	Q595662	INORGAN	POTASSIUM	50		48.7	mg/L	97	
BLA01	Q595663	NA	POTASSIUM			< 0.0800	mg/L		
BLA02	Q592151	NA	POTASSIUM			0.382	mg/L		
LCS	Q592150	SPEX	POTASSIUM	100		95.3	mg/L	95	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	POTASSIUM	1.37	100	99.4	mg/L	98	
DPS02	Q592153	A392830	POTASSIUM	1.37	100	98.6	mg/L	97	1
CCV	Q595664	INORGAN	POTASSIUM	50		47.8	mg/L	96	
BLA01	Q595665	NA	POTASSIUM			< 0.0800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	POTASSIUM	50		46.8	mg/L	94	
BLA01	Q595667	NA	POTASSIUM			< 0.0800	mg/L		

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

SODIUM ICP SW846-6010A M131.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
S02	Q592153	A392830	R307150
MPLE	A392824	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392825	Rep: 1	R307150
PLE	A392826	Rep: 1	R307150
SAMPLE	A392827	Rep: 1	R307150
SAMPLE	A392828	Rep: 1	R307150
SAMPLE	A392829	Rep: 1	R307150
SAMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595656	PERKIN	SODIUM	2		1.97	mg/L	99	
ICV01	Q595657	SPEX	SODIUM	20		19.9	mg/L	100	
CCV	Q595662	INORGAN	SODIUM	50		48.8	mg/L	98	
BLA01	Q595663	NA	SODIUM			< 0.0800	mg/L		
BLA02	Q592151	NA	SODIUM			0.366	mg/L		
LCS	Q592150	SPEX	SODIUM	100		95.2	mg/L	95	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	SODIUM	40	100	137	mg/L	97	
DPS02	Q592153	A392830	SODIUM	40	100	134	mg/L	94	3
CCV	Q595664	INORGAN	SODIUM	50		47.3	mg/L	95	
BLA01	Q595665	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
IPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
SAMPLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	SODIUM	50		46.1	mg/L	92	
BLA01	Q595667	NA	SODIUM			< 0.0800	mg/L		

Comments

*Q592153 * Spike is NA; Sample concentration is greater than four times the spike concentration. (Mn)*

ZINC ICP SW846-6010A M139.3

Prep: FAA OR ICP ACID DIGESTION (DISSOLVED METALS) AQUEOU SW846-3005A

Run: R306597 Analyst.: G CARTER Run Date...: 19-NOV-96
PREP Reviewer: W WATNESS Review Date: 19-NOV-96

QC Type	Lab ID	Source	Anal Run
LCS	Q592150	SPEX	R307150
BLA02	Q592151	NA	R307150
SPI02	Q592152	A392830	R307150
DPS02	Q592153	A392830	R307150
SAMPLE	A392824	Rep: 1	R307150
SAMPLE	A392825	Rep: 1	R307150
MPLE	A392826	Rep: 1	R307150
MPLE	A392827	Rep: 1	R307150

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Anal Run
SAMPLE	A392828	Rep: 1	R307150
[illegible]PLE	A392829	Rep: 1	R307150
[illegible]AMPLE	A392830	Rep: 1	R307150
SAMPLE	A392831	Rep: 1	R307150
SAMPLE	A392832	Rep: 1	R307150
SAMPLE	A392833	Rep: 1	R307150

Run: R307150 Analyst.: A STOCKBURGER Run Date...: 19-NOV-96 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 20-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q595655	PERKIN	ZINC	1		0.987	mg/L	99	
CDL01	Q595660	INORGAN	ZINC	10		10.0	mg/L	100	
ICS-A	Q595661	PERKIN	ZINC	1.00		0.944	mg/L	94	
CCV	Q595662	INORGAN	ZINC	5.00		5.00	mg/L	100	
BLA01	Q595663	NA	ZINC			< 0.00800	mg/L		
BLA02	Q592151	NA	ZINC			0.0112	mg/L		
LCS	Q592150	SPEX	ZINC	5.00		4.78	mg/L	96	
SAMPLE	A392830		See Cert. of Analysis, Rep: 1						
SPI02	Q592152	A392830	ZINC	0	0.500	0.514	mg/L	103	
DPS02	Q592153	A392830	ZINC	0	0.500	0.485	mg/L	97	6
CCV	Q595664	INORGAN	ZINC	5.00		4.90	mg/L	98	
BLA01	Q595665	NA	ZINC			< 0.00800	mg/L		
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392825		See Cert. of Analysis, Rep: 1						
SAMPLE	A392826		See Cert. of Analysis, Rep: 1						
SAMPLE	A392827		See Cert. of Analysis, Rep: 1						
SAMPLE	A392828		See Cert. of Analysis, Rep: 1						
SAMPLE	A392829		See Cert. of Analysis, Rep: 1						
[illegible]PLE	A392831		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 1						
SAMPLE	A392833		See Cert. of Analysis, Rep: 1						
CCV	Q595666	INORGAN	ZINC	5.00		4.85	mg/L	97	
BLA01	Q595667	NA	ZINC			< 0.00800	mg/L		
CDL01	Q595672	PERKIN	ZINC	0.040		0.0441	mg/L	110	
ICS-A	Q595673	PERKIN	ZINC	1.00		0.942	mg/L	94	

Comments

*Q592153 * Spike is NA; Sample concentration is greater than Four times the spike concentration. (Mn)*

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260A 0510.6

Run: R307703 Analyst.: R SHAMP Run Date...: 18-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 25-NOV-96

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q599665		See Attached Report: g8772j.ind			*			
BLA01	Q599666		See Attached Report: g8785j.ind						
SAMPLE	A392824		See Cert. of Analysis, Rep: 0						

Run: R307738 Analyst.: R SHAMP Run Date...: 22-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 26-NOV-96

CCV	Q599938		See Attached Report: g8830j.ind			*			
BLA01	Q599939		See Attached Report: g8849j.ind						
[illegible]MPLE	A392826		See Cert. of Analysis, Rep: 0						
[illegible]MPLE	A392827		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A392828		See Cert. of Analysis, Rep: 0						
PLE	A392829		See Cert. of Analysis, Rep: 0						
SAMPLE	A392830		See Cert. of Analysis, Rep: 0						
SAMPLE	A392831		See Cert. of Analysis, Rep: 0						
SAMPLE	A392833		See Cert. of Analysis, Rep: 0						
SPI01	Q599940	A393071	BENZENE	0	50	50.2	ug/L	100.4	
SPI01	Q599940	A393071	CARBON TETRACHLORIDE	0	50	53.8	ug/L	107.6	
SPI01	Q599940	A393071	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	44.4	ug/L	88.8	
SPI01	Q599940	A393071	1,2-DICHLOROETHANE	0	50	56.6	ug/L	113.2	
SPI01	Q599940	A393071	1,1-DICHLOROETHENE	0	50	46.1	ug/L	92.2	
SPI01	Q599940	A393071	1,1,1-TRICHLOROETHANE	0	50	61.5	ug/L	123	
SPI01	Q599940	A393071	TRICHLOROETHENE	0	50	48.2	ug/L	96.4	
SPI01	Q599940	A393071	VINYL CHLORIDE	0	50	55	ug/L	110	
SPI01	Q599940	A393071	BROMOMETHANE	0	50	48.1	ug/L	96.2	
SPI01	Q599940	A393071	CHLOROBENZENE	0	50	49.3	ug/L	98.6	
SPI01	Q599940	A393071	CHLOROETHANE	0	50	46.8	ug/L	93.6	
SPI01	Q599940	A393071	CHLOROFORM	0	50	60	ug/L	120	
SPI01	Q599940	A393071	CHLOROMETHANE	0	50	47.9	ug/L	95.8	
SPI01	Q599940	A393071	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	48.4	ug/L	96.8	
SPI01	Q599940	A393071	TRANS-1,2-DICHLOROETHENE	0	50	49.2	ug/L	98.4	
SPI01	Q599940	A393071	CIS-1,2-DICHLOROETHENE	0	50	55.8	ug/L	111.6	
SPI01	Q599940	A393071	DICHLOROMETHANE (METHYLENE CHLORIDE)	7	50	45	ug/L	76	
SPI01	Q599940	A393071	1,1-DICHLOROETHANE	0	50	54.8	ug/L	109.6	
SPI01	Q599940	A393071	1,2-DICHLOROPROPANE	0	50	51.8	ug/L	103.6	
SPI01	Q599940	A393071	CIS-1,3-DICHLOROPROPENE	0	50	51.6	ug/L	103.2	
SPI01	Q599940	A393071	TRANS-1,3-DICHLOROPROPENE	0	50	51.8	ug/L	103.6	
PI01	Q599940	A393071	ETHYL BENZENE	0	50	49.7	ug/L	99.4	
.01	Q599940	A393071	STYRENE	0	50	51.9	ug/L	103.8	
SPI01	Q599940	A393071	1,1,2-TRICHLOROETHANE	0	50	52.4	ug/L	104.8	
SPI01	Q599940	A393071	1,1,1,2-TETRACHLOROETHANE	0	50	51.1	ug/L	102.2	
SPI01	Q599940	A393071	1,1,2,2-TETRACHLOROETHANE	0	50	48.9	ug/L	97.8	
SPI01	Q599940	A393071	TETRACHLOROETHENE	0	50	46.3	ug/L	92.6	
SPI01	Q599940	A393071	TOLUENE	0	50	49.7	ug/L	99.4	
SPI01	Q599940	A393071	TRICHLOROFLUOROMETHANE	0	50	55.1	ug/L	110.2	
DPS01	Q599941	A393071	BENZENE	0	50	52.7	ug/L	105.4	4.9
DPS01	Q599941	A393071	CARBON TETRACHLORIDE	0	50	51.7	ug/L	103.4	4
DPS01	Q599941	A393071	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	46.1	ug/L	92.2	3.8
DPS01	Q599941	A393071	1,2-DICHLOROETHANE	0	50	55.7	ug/L	111.4	1.6
DPS01	Q599941	A393071	1,1-DICHLOROETHENE	0	50	51.5	ug/L	103	11.1
DPS01	Q599941	A393071	1,1,1-TRICHLOROETHANE	0	50	58.3	ug/L	116.6	5.3
DPS01	Q599941	A393071	TRICHLOROETHENE	0	50	49.7	ug/L	99.4	3.1
DPS01	Q599941	A393071	VINYL CHLORIDE	0	50	56	ug/L	112	1.8
DPS01	Q599941	A393071	BROMOMETHANE	0	50	53	ug/L	106	9.7
DPS01	Q599941	A393071	CHLOROBENZENE	0	50	50.5	ug/L	101	2.4
DPS01	Q599941	A393071	CHLOROETHANE	0	50	54.5	ug/L	109	15.2
DPS01	Q599941	A393071	CHLOROFORM	0	50	58.2	ug/L	116.4	3
DPS01	Q599941	A393071	CHLOROMETHANE	0	50	52.5	ug/L	105	9.2
DPS01	Q599941	A393071	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.5	ug/L	101	4.2
DPS01	Q599941	A393071	TRANS-1,2-DICHLOROETHENE	0	50	53.7	ug/L	107.4	8.7
DPS01	Q599941	A393071	CIS-1,2-DICHLOROETHENE	0	50	56.6	ug/L	113.2	1.4
DPS01	Q599941	A393071	DICHLOROMETHANE (METHYLENE CHLORIDE)	7	50	55.9	ug/L	97.8	25.1
DPS01	Q599941	A393071	1,1-DICHLOROETHANE	0	50	54.7	ug/L	109.4	.2
S01	Q599941	A393071	1,2-DICHLOROPROPANE	0	50	53.7	ug/L	107.4	3.6
S01	Q599941	A393071	CIS-1,3-DICHLOROPROPENE	0	50	53.4	ug/L	106.8	3.4

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DPS01	Q599941	A393071	TRANS-1,3-DICHLOROPROPENE	0	50	51.8	ug/L	103.6	0
DPS01	Q599941	A393071	ETHYL BENZENE	0	50	50.5	ug/L	101	1.6
DPS01	Q599941	A393071	STYRENE	0	50	52.2	ug/L	104.4	.6
DPS01	Q599941	A393071	1,1,2-TRICHLOROETHANE	0	50	53.1	ug/L	106.2	1.3
DPS01	Q599941	A393071	1,1,1,2-TETRACHLOROETHANE	0	50	51.6	ug/L	103.2	1
DPS01	Q599941	A393071	1,1,2,2-TETRACHLOROETHANE	0	50	52.8	ug/L	105.6	7.7
DPS01	Q599941	A393071	TETRACHLOROETHENE	0	50	47.3	ug/L	94.6	2.1
DPS01	Q599941	A393071	TOLUENE	0	50	50.4	ug/L	100.8	1.4
DPS01	Q599941	A393071	TRICHLOROFLUOROMETHANE	0	50	54.2	ug/L	108.4	1.6

Run: R307973 Analyst.: R SHAMP Run Date...: 23-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: A BRADBURN Review Date: 27-NOV-96

CCV	Q601678		See Attached Report: g8860j.ind			*			
BLA01	Q601679		See Attached Report: g8861j.ind						
LCS01	Q601680	METHOD	BENZENE	20		20.5	ug/L	102.5	
LCS01	Q601680	METHOD	CARBON TETRACHLORIDE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	20		19.5	ug/L	97.5	
LCS01	Q601680	METHOD	1,2-DICHLOROETHANE	20		21.8	ug/L	109	
LCS01	Q601680	METHOD	1,1-DICHLOROETHENE	20		16.3	ug/L	81.5	
LCS01	Q601680	METHOD	1,1,1-TRICHLOROETHANE	20		12.3	ug/L	61.5	
LCS01	Q601680	METHOD	TRICHLOROETHENE	20		19.2	ug/L	96	
LCS01	Q601680	METHOD	VINYL CHLORIDE	20		20.3	ug/L	101.5	
LCS01	Q601680	METHOD	BROMOMETHANE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	CHLOROBENZENE	20		19.7	ug/L	98.5	
LCS01	Q601680	METHOD	CHLOROETHANE	20		17.1	ug/L	85.5	
LCS01	Q601680	METHOD	CHLOROFORM	20		21.4	ug/L	107	
LCS01	Q601680	METHOD	CHLOROMETHANE	20		18.9	ug/L	94.5	
LCS01	Q601680	METHOD	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	TRANS-1,2-DICHLOROETHENE	20		18.5	ug/L	92.5	
LCS01	Q601680	METHOD	CIS-1,2-DICHLOROETHENE	20		20	ug/L	100	
LCS01	Q601680	METHOD	DICHLOROMETHANE (METHYLENE CHLORIDE)	20		19.8	ug/L	99	
LCS01	Q601680	METHOD	1,1-DICHLOROETHANE	20		19.6	ug/L	98	
LCS01	Q601680	METHOD	1,2-DICHLOROPROPANE	20		20.2	ug/L	101	
LCS01	Q601680	METHOD	CIS-1,3-DICHLOROPROPENE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	TRANS-1,3-DICHLOROPROPENE	20		20.5	ug/L	102.5	
LCS01	Q601680	METHOD	ETHYL BENZENE	20		20	ug/L	100	
LCS01	Q601680	METHOD	STYRENE	20		20.4	ug/L	102	
LCS01	Q601680	METHOD	1,1,2-TRICHLOROETHANE	20		20.8	ug/L	104	
LCS01	Q601680	METHOD	1,1,1,2-TETRACHLOROETHANE	20		19.7	ug/L	98.5	
LCS01	Q601680	METHOD	1,1,2,2-TETRACHLOROETHANE	20		21.1	ug/L	105.5	
LCS01	Q601680	METHOD	TETRACHLOROETHENE	20		19.1	ug/L	95.5	
LCS01	Q601680	METHOD	TOLUENE	20		19.2	ug/L	96	
LCS01	Q601680	METHOD	TRICHLOROFLUOROMETHANE	20		17.6	ug/L	88	
SAMPLE	A392824		See Cert. of Analysis, Rep: 1						
SAMPLE	A392832		See Cert. of Analysis, Rep: 0						
SPI01	Q601681	A393078	BENZENE	0	50	50.6	ug/L	101.2	
SPI01	Q601681	A393078	CARBON TETRACHLORIDE	0	50	50.6	ug/L	101.2	
SPI01	Q601681	A393078	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	50.7	ug/L	101.4	
SPI01	Q601681	A393078	1,2-DICHLOROETHANE	0	50	53.6	ug/L	107.2	
SPI01	Q601681	A393078	1,1-DICHLOROETHENE	0	50	42.4	ug/L	84.8	
SPI01	Q601681	A393078	1,1,1-TRICHLOROETHANE	0	50	57.5	ug/L	115	
SPI01	Q601681	A393078	TRICHLOROETHENE	0	50	48.4	ug/L	96.8	
SPI01	Q601681	A393078	VINYL CHLORIDE	0	50	48.6	ug/L	97.2	
SPI01	Q601681	A393078	BROMOMETHANE	0	50	47.5	ug/L	95	
SPI01	Q601681	A393078	CHLOROBENZENE	0	50	50.5	ug/L	101	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q601681	A393078	CHLOROETHANE	0	50	44.3	ug/L	88.6	
01	Q601681	A393078	CHLOROFORM	0	50	55.8	ug/L	111.6	
SPI01	Q601681	A393078	CHLOROMETHANE	0	50	45.7	ug/L	91.4	
SPI01	Q601681	A393078	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.2	ug/L	100.4	
SPI01	Q601681	A393078	TRANS-1,2-DICHLOROETHENE	0	50	44.5	ug/L	89	
SPI01	Q601681	A393078	CIS-1,2-DICHLOROETHENE	0	50	52.7	ug/L	105.4	
SPI01	Q601681	A393078	DICHLOROMETHANE (METHYLENE CHLORIDE)	4.8	50	48.9	ug/L	88.2	
SPI01	Q601681	A393078	1,1-DICHLOROETHANE	0	50	50.1	ug/L	100.2	
SPI01	Q601681	A393078	1,2-DICHLOROPROPANE	0	50	52.3	ug/L	104.6	
SPI01	Q601681	A393078	CIS-1,3-DICHLOROPROPENE	0	50	52.4	ug/L	104.8	
SPI01	Q601681	A393078	TRANS-1,3-DICHLOROPROPENE	0	50	53.2	ug/L	106.4	
SPI01	Q601681	A393078	ETHYL BENZENE	0	50	51.6	ug/L	103.2	
SPI01	Q601681	A393078	STYRENE	0	50	51.9	ug/L	103.8	
SPI01	Q601681	A393078	1,1,2-TRICHLOROETHANE	0	50	54.2	ug/L	108.4	
SPI01	Q601681	A393078	1,1,1,2-TETRACHLOROETHANE	0	50	52.1	ug/L	104.2	
SPI01	Q601681	A393078	1,1,2,2-TETRACHLOROETHANE	0	50	47.3	ug/L	94.6	
SPI01	Q601681	A393078	TETRACHLOROETHENE	0	50	47.4	ug/L	94.8	
SPI01	Q601681	A393078	TOLUENE	0	50	53.5	ug/L	107	
SPI01	Q601681	A393078	TRICHLOROFLUOROMETHANE	0	50	49.8	ug/L	99.6	
DPS01	Q601682	A393078	BENZENE	0	50	52.7	ug/L	105.4	4.1
DPS01	Q601682	A393078	CARBON TETRACHLORIDE	0	50	49.2	ug/L	98.4	2.8
DPS01	Q601682	A393078	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	50.4	ug/L	100.8	.6
DPS01	Q601682	A393078	1,2-DICHLOROETHANE	0	50	52.6	ug/L	105.2	1.9
DPS01	Q601682	A393078	1,1-DICHLOROETHENE	0	50	47.3	ug/L	94.6	10.9
DPS01	Q601682	A393078	1,1,1-TRICHLOROETHANE	0	50	53.1	ug/L	106.2	8
DPS01	Q601682	A393078	TRICHLOROETHENE	0	50	50.8	ug/L	101.6	4.8
DPS01	Q601682	A393078	VINYL CHLORIDE	0	50	50.9	ug/L	101.8	4.6
501	Q601682	A393078	BROMOMETHANE	0	50	51.1	ug/L	102.2	7.3
DPS01	Q601682	A393078	CHLOROBENZENE	0	50	51.5	ug/L	103	2
DPS01	Q601682	A393078	CHLOROETHANE	0	50	48	ug/L	96	8
DPS01	Q601682	A393078	CHLOROFORM	0	50	53.4	ug/L	106.8	4.4
DPS01	Q601682	A393078	CHLOROMETHANE	0	50	48.1	ug/L	96.2	5.1
DPS01	Q601682	A393078	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	50.3	ug/L	100.6	.2
DPS01	Q601682	A393078	TRANS-1,2-DICHLOROETHENE	0	50	47.9	ug/L	95.8	7.4
DPS01	Q601682	A393078	CIS-1,2-DICHLOROETHENE	0	50	52.3	ug/L	104.6	.8
DPS01	Q601682	A393078	DICHLOROMETHANE (METHYLENE CHLORIDE)	4.8	50	54.6	ug/L	99.6	12.1
DPS01	Q601682	A393078	1,1-DICHLOROETHANE	0	50	49.4	ug/L	98.8	1.4
DPS01	Q601682	A393078	1,2-DICHLOROPROPANE	0	50	52.7	ug/L	105.4	.8
DPS01	Q601682	A393078	CIS-1,3-DICHLOROPROPENE	0	50	52.5	ug/L	105	.2
DPS01	Q601682	A393078	TRANS-1,3-DICHLOROPROPENE	0	50	52.3	ug/L	104.6	1.7
DPS01	Q601682	A393078	ETHYL BENZENE	0	50	51.1	ug/L	102.2	1
DPS01	Q601682	A393078	STYRENE	0	50	52.5	ug/L	105	1.1
DPS01	Q601682	A393078	1,1,2-TRICHLOROETHANE	0	50	53.6	ug/L	107.2	1.1
DPS01	Q601682	A393078	1,1,1,2-TETRACHLOROETHANE	0	50	51.3	ug/L	102.6	1.5
DPS01	Q601682	A393078	1,1,2,2-TETRACHLOROETHANE	0	50	48.9	ug/L	97.8	3.3
DPS01	Q601682	A393078	TETRACHLOROETHENE	0	50	48.7	ug/L	97.4	2.7
DPS01	Q601682	A393078	TOLUENE	0	50	52.6	ug/L	105.2	1.7
DPS01	Q601682	A393078	TRICHLOROFLUOROMETHANE	0	50	47.8	ug/L	95.6	4.1

Run: R308132 Analyst.: R SHAMP Run Date...: 24-NOV-96 Instrument: GC/MS VOA
ANALYTICAL Reviewer: H WILLIAMS Review Date: 02-DEC-96

CCV	Q602346		See Attached Report: g8880j.ind			*			
BLA01	Q602347		See Attached Report: g8896j.ind						
5S01	Q602351	METHOD	BENZENE	20		22.6	ug/L	113	
CS01	Q602351	METHOD	CARBON TETRACHLORIDE	20		21.7	ug/L	108.5	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS01	Q602351	METHOD	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	20		22.1	ug/L	110.5	
501	Q602351	METHOD	1,2-DICHLOROETHANE	20		23.8	ug/L	119	
LCS01	Q602351	METHOD	1,1-DICHLOROETHENE	20		17	ug/L	85	
LCS01	Q602351	METHOD	1,1,1-TRICHLOROETHANE	20		25.2	ug/L	126	
LCS01	Q602351	METHOD	TRICHLOROETHENE	20		21.2	ug/L	106	
LCS01	Q602351	METHOD	VINYL CHLORIDE	20		21.2	ug/L	106	
LCS01	Q602351	METHOD	BROMOMETHANE	20		21.3	ug/L	106.5	
LCS01	Q602351	METHOD	CHLOROBENZENE	20		21.5	ug/L	107.5	
LCS01	Q602351	METHOD	CHLOROETHANE	20		18	ug/L	90	
LCS01	Q602351	METHOD	CHLOROFORM	20		23.8	ug/L	119	
LCS01	Q602351	METHOD	CHLOROMETHANE	20		19.3	ug/L	96.5	
LCS01	Q602351	METHOD	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	20		22	ug/L	110	
LCS01	Q602351	METHOD	TRANS-1,2-DICHLOROETHENE	20		19.8	ug/L	99	
LCS01	Q602351	METHOD	CIS-1,2-DICHLOROETHENE	20		22.2	ug/L	111	
LCS01	Q602351	METHOD	DICHLOROMETHANE (METHYLENE CHLORIDE)	20		21.1	ug/L	105.5	
LCS01	Q602351	METHOD	1,1-DICHLOROETHANE	20		21.6	ug/L	108	
LCS01	Q602351	METHOD	1,2-DICHLOROPROPANE	20		22.4	ug/L	112	
LCS01	Q602351	METHOD	CIS-1,3-DICHLOROPROPENE	20		22.3	ug/L	111.5	
LCS01	Q602351	METHOD	TRANS-1,3-DICHLOROPROPENE	20		22.3	ug/L	111.5	
LCS01	Q602351	METHOD	ETHYL BENZENE	20		21.9	ug/L	109.5	
LCS01	Q602351	METHOD	STYRENE	20		21.9	ug/L	109.5	
LCS01	Q602351	METHOD	1,1,2-TRICHLOROETHANE	20		23.7	ug/L	118.5	
LCS01	Q602351	METHOD	1,1,1,2-TETRACHLOROETHANE	20		21.3	ug/L	106.5	
LCS01	Q602351	METHOD	1,1,2,2-TETRACHLOROETHANE	20		25.6	ug/L	128	
LCS01	Q602351	METHOD	TETRACHLOROETHENE	20		19.8	ug/L	99	
LCS01	Q602351	METHOD	TOLUENE	20		21.6	ug/L	108	
LCS01	Q602351	METHOD	TRICHLOROFLUOROMETHANE	20		18.5	ug/L	92.5	
MPLE	A392825		See Cert. of Analysis, Rep: 0						
SPI01	Q602348	A393247	BENZENE	0	50	57	ug/L	114	
SPI01	Q602348	A393247	CARBON TETRACHLORIDE	0	50	58.7	ug/L	117.4	
SPI01	Q602348	A393247	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	52.6	ug/L	105.2	
SPI01	Q602348	A393247	1,2-DICHLOROETHANE	0	50	69.1	ug/L	138.2	
SPI01	Q602348	A393247	1,1-DICHLOROETHENE	0	50	57.7	ug/L	115.4	
SPI01	Q602348	A393247	1,1,1-TRICHLOROETHANE	0	50	! 76.6	ug/L	153.2	
SPI01	Q602348	A393247	TRICHLOROETHENE	0	50	54.5	ug/L	109	
SPI01	Q602348	A393247	VINYL CHLORIDE	0	50	63.5	ug/L	127	
SPI01	Q602348	A393247	BROMOMETHANE	0	50	55.2	ug/L	110.4	
SPI01	Q602348	A393247	CHLOROBENZENE	0	50	53.2	ug/L	106.4	
SPI01	Q602348	A393247	CHLOROETHANE	0	50	56.1	ug/L	112.2	
SPI01	Q602348	A393247	CHLOROFORM	0	50	! 76.3	ug/L	152.6	
SPI01	Q602348	A393247	CHLOROMETHANE	0	50	47.3	ug/L	94.6	
SPI01	Q602348	A393247	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	53.6	ug/L	107.2	
SPI01	Q602348	A393247	TRANS-1,2-DICHLOROETHENE	0	50	68	ug/L	136	
SPI01	Q602348	A393247	CIS-1,2-DICHLOROETHENE	0	50	70.1	ug/L	140.2	
SPI01	Q602348	A393247	DICHLOROMETHANE (METHYLENE CHLORIDE)	4	50	58.6	ug/L	109.2	
SPI01	Q602348	A393247	1,1-DICHLOROETHANE	0	50	68.1	ug/L	136.2	
SPI01	Q602348	A393247	1,2-DICHLOROPROPANE	0	50	57.2	ug/L	114.4	
SPI01	Q602348	A393247	CIS-1,3-DICHLOROPROPENE	0	50	60	ug/L	120	
SPI01	Q602348	A393247	TRANS-1,3-DICHLOROPROPENE	0	50	61.6	ug/L	123.2	
SPI01	Q602348	A393247	ETHYL BENZENE	0	50	54.2	ug/L	108.4	
SPI01	Q602348	A393247	STYRENE	0	50	59	ug/L	118	
SPI01	Q602348	A393247	1,1,2-TRICHLOROETHANE	0	50	! 64.3	ug/L	128.6	
SPI01	Q602348	A393247	1,1,1,2-TETRACHLOROETHANE	0	50	54.5	ug/L	109	
101	Q602348	A393247	1,1,2,2-TETRACHLOROETHANE	0	50	56.7	ug/L	113.4	

HERITAGE ENVIRONMENTAL SERVICES, INC.

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q602348	A393247	TETRACHLOROETHENE	0	50	48.7	ug/L	97.4	
I01	Q602348	A393247	TOLUENE	0	50	58.2	ug/L	116.4	
I01	Q602348	A393247	TRICHLOROFLUOROMETHANE	0	50	63.3	ug/L	126.6	
DPS01	Q602349	A393247	BENZENE	0	50	60.3	ug/L	120.6	5.6
DPS01	Q602349	A393247	CARBON TETRACHLORIDE	0	50	55.7	ug/L	111.4	5.2
DPS01	Q602349	A393247	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	50	52.8	ug/L	105.6	.4
DPS01	Q602349	A393247	1,2-DICHLOROETHANE	0	50	57.8	ug/L	115.6	17.8
DPS01	Q602349	A393247	1,1-DICHLOROETHENE	0	50	58.2	ug/L	116.4	.9
DPS01	Q602349	A393247	1,1,1-TRICHLOROETHANE	0	50	63.9	ug/L	127.8	18.1
DPS01	Q602349	A393247	TRICHLOROETHENE	0	50	57	ug/L	114	4.5
DPS01	Q602349	A393247	VINYL CHLORIDE	0	50	58.1	ug/L	116.2	8.9
DPS01	Q602349	A393247	BROMOMETHANE	0	50	56.5	ug/L	113	2.3
DPS01	Q602349	A393247	CHLOROBENZENE	0	50	54.6	ug/L	109.2	2.6
DPS01	Q602349	A393247	CHLOROETHANE	0	50	57.7	ug/L	115.4	2.8
DPS01	Q602349	A393247	CHLOROFORM	0	50	63.9	ug/L	127.8	17.7
DPS01	Q602349	A393247	CHLOROMETHANE	0	50	57.8	ug/L	115.6	20
DPS01	Q602349	A393247	1,2-DICHLOROBENZENE (O-DICHLOROBENZE	0	50	54.4	ug/L	108.8	1.5
DPS01	Q602349	A393247	TRANS-1,2-DICHLOROETHENE	0	50	60.5	ug/L	121	11.7
DPS01	Q602349	A393247	CIS-1,2-DICHLOROETHENE	0	50	61.5	ug/L	123	13.1
DPS01	Q602349	A393247	DICHLOROMETHANE (METHYLENE CHLORIDE)	4	50	59.6	ug/L	111.2	1.8
DPS01	Q602349	A393247	1,1-DICHLOROETHANE	0	50	62.8	ug/L	125.6	8.1
DPS01	Q602349	A393247	1,2-DICHLOROPROPANE	0	50	59.4	ug/L	118.8	3.8
DPS01	Q602349	A393247	CIS-1,3-DICHLOROPROPENE	0	50	57.5	ug/L	115	4.3
DPS01	Q602349	A393247	TRANS-1,3-DICHLOROPROPENE	0	50	56.8	ug/L	113.6	8.1
DPS01	Q602349	A393247	ETHYL BENZENE	0	50	55.2	ug/L	110.4	1.8
DPS01	Q602349	A393247	STYRENE	0	50	51.4	ug/L	102.8	13.8
DPS01	Q602349	A393247	1,1,2-TRICHLOROETHANE	0	50	59.1	ug/L	118.2	8.4
01	Q602349	A393247	1,1,1,2-TETRACHLOROETHANE	0	50	54.7	ug/L	109.4	.4
DPS01	Q602349	A393247	1,1,2,2-TETRACHLOROETHANE	0	50	54.2	ug/L	108.4	4.5
DPS01	Q602349	A393247	TETRACHLOROETHENE	0	50	52.2	ug/L	104.4	6.9
DPS01	Q602349	A393247	TOLUENE	0	50	57.5	ug/L	115	1.2
DPS01	Q602349	A393247	TRICHLOROFLUOROMETHANE	0	50	58.5	ug/L	117	7.9

Comments

*Q599665 * SEE G8772J.IND*
*Q599938 * SEE G8830J.IND*
Q599940 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.
Q599941 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.
*Q601678 * SEE G8860J.IND*
*Q601680 *MSD OUT OF 12 HOURS.*
*Q602346 * SEE G8880J.IND*
Q602348 ! Advisory limits from laboratory generated data.
Q602351 MSD OUT OF 12 HOURS HOLDING TIME.

Approved by: P.K. Spence

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: HERITAGE Contract: _____

ject No.: _____ Site: _____ Location: _____ Group: GCMS

Instrument ID: GCMS39 Calibration Date: 11/18/96 Time: 0708

Lab File ID: 8772J.D Init. Calib. Date(s): 11/18/96 _____

Heated Purge: (Y/N) N Init. Calib. Times: _____ _____

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.252	0.259		2.8	
Chloromethane	0.250	0.290	0.100	16.0	
Vinyl Chloride	0.227	0.237		4.4	20.0
Bromomethane	0.316	0.318		0.6	
Chloroethane	0.185	0.205		10.8	
Trichlorofluoromethane	0.795	0.879		10.6	
Acrolein	0.190	0.142		25.3	
Acetone	0.078	0.066		15.4	
1,1-Dichloroethene	0.370	0.426		15.1	20.0
Methylene Chloride	0.511	0.525		2.7	
Acrylonitrile	0.430	0.348		19.1	
Carbon Disulfide	0.961	1.000		4.1	
Vinyl Acetate	0.155	0.161		3.9	
trans-1,2-Dichloroethene	0.385	0.433		12.5	
1,1-Dichloroethane	0.803	0.903	0.100	12.5	
2-Butanone	0.119	0.123		3.4	
cis-1,2-Dichloroethene	0.470	0.527		12.1	
Chloroform	0.840	0.874		4.0	20.0
Bromochloromethane	0.277	0.310		11.9	
2,2-Dichloropropane	0.676	0.639		5.5	
1,1,1-Trichloroethane	0.752	0.709		5.7	
Iodomethane	0.716	0.826		15.4	
1,1-Dichloropropene	0.640	0.630		1.6	
Carbon Tetrachloride	0.653	0.650		0.5	
1,2-Dichloroethane	0.468	0.476		1.7	
Benzene	1.119	1.059		5.4	
Trichloroethene	0.509	0.538		5.7	
1,2-Dichloropropane	0.501	0.518		3.4	20.0
Bromodichloromethane	0.860	0.902		4.9	
Dibromomethane	0.389	0.425		9.3	
4-Methyl-2-Pentanone	0.583	0.633		8.6	
2-Chloroethylvinylether	0.215	0.212		1.4	
cis-1,3-Dichloropropene	0.744	0.749		0.7	
Toluene	1.562	1.640		5.0	20.0
trans-1,3-Dichloropropene	0.656	0.647		1.4	
1,1,2-Trichloroethane	0.433	0.440		1.6	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: HERITAGE Contract: _____

ect No.: _____ Site: _____ Location: _____ Group: GCMS

Instrument ID: GCMS39 Calibration Date: 11/18/96 Time: 0708

Lab File ID: 8772J.D Init. Calib. Date(s): 11/18/96 _____

Heated Purge: (Y/N) N Init. Calib. Times: _____ _____

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,2-Dibromoethane	0.608	0.623		2.5	
2-Hexanone	0.308	0.282		8.4	
1,3-Dichloropropane	0.835	0.697		16.5	
Tetrachloroethene	0.738	0.664		10.0	
Dibromochloromethane	0.790	0.707		10.5	
Chlorobenzene	1.293	1.262	0.300	2.4	
1,1,1,2-Tetrachloroethane	0.622	0.557		10.5	
Ethyl Benzene	0.569	0.522		8.3	20.0
m,p-Xylene	0.727	0.701		3.6	
o-Xylene	0.702	0.700		0.3	
Styrene	1.221	1.222		0.1	
Bromoform	0.573	0.540	0.100	5.8	
Isopropylbenzene	3.932	3.951		0.5	
trans-1,4-Dichloro-2-butene	0.369	0.361		2.2	
1,1,2,2-Tetrachloroethane	1.619	1.493	0.300	7.8	
Bromobenzene	2.769	2.540		8.3	
1,2,3-Trichloropropane	0.411	0.374		9.0	
n-Propylbenzene	0.551	0.553		0.4	
1,3,5-Trimethylbenzene	3.065	3.350		9.3	
2-Chlorotoluene	0.906	0.914		0.9	
4-Chlorotoluene	0.985	0.962		2.3	
t-Butylbenzene	3.450	3.484		1.0	
1,2,4-Trimethylbenzene	2.981	3.407		14.3	
sec-Butylbenzene	4.886	4.877		0.2	
p-Isopropyltoluene	3.599	3.890		8.1	
1,3-Dichlorobenzene	2.075	2.069		0.3	
1,4-Dichlorobenzene	2.062	2.048		0.7	
n-Butylbenzene	1.883	2.139		13.6	
1,2-Dichlorobenzene	1.884	1.878		0.3	
1,2-Dibromo-3-chloropropane	0.326	0.381		16.9	
1,2,4-Trichlorobenzene	1.197	1.810		51.2	
Naphthalene	1.360	2.153		58.3	
Hexachlorobutadiene	1.370	1.559		13.8	
1,2,3-Trichlorobenzene	0.925	1.403		51.7	
Diethyl Ether					
Methyl-t-butyl Ether					

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: HERITAGE Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: GCMS

Instrument ID: GCMS39 Calibration Date: 11/18/96 Time: 0708

Lab File ID: 8772J.D Init. Calib. Date(s): 11/18/96 1/0/00

Heated Purge: (Y/N) N Init. Calib. Times: 0708 0000

GC Column: CAP ID: 0.53 (mm)

COMPOUND	RRF	RRF50	RRF	%D	%D
Diisopropyl Ether					
Tetrahydrofuran					
1,2,3-Trimethylbenzene					
1,2-Dichloroethane-d4	0.449	0.451		0.4	
Toluene-d8	1.598	1.724		7.9	
4-Bromofluorobenzene	1.063	1.168		9.9	

All other compounds must meet a minimum RRF of 0.010.

HERITAGE
EPA 524.2 MATRIX METHOD BLANK
VOLATILE ORGANIC COMPOUNDS IN DRINKING WATER, GC/MS (CAPILLARY COLUMN)

GC/MS VOA Data File:>8785j

Date/Time of Analysis:11/18/96 11:00

Analyte List	Result	Units	Limit
Regulated Contaminants			
Benzene	BDL	UG/L	0.5
Carbon Tetrachloride	BDL	UG/L	0.5
1,4-Dichlorobenzene	BDL	UG/L	0.2
1,2-Dichloroethane	BDL	UG/L	0.5
1,1-Dichloroethene	BDL	UG/L	0.5
1,1,1-Trichloroethane	BDL	UG/L	0.5
Trichloroethene	BDL	UG/L	0.5
Vinyl Chloride	BDL	UG/L	0.5
Chlorobenzene	BDL	UG/L	0.5
1,2-Dichlorobenzene	BDL	UG/L	0.5
Trans-1,2-Dichloroethene	BDL	UG/L	0.5
Cis-1,2-Dichloroethene	BDL	UG/L	0.5
Dichloromethane	BDL	UG/L	0.5
1,2-Dichloropropane	BDL	UG/L	0.5
Ethyl Benzene	BDL	UG/L	0.5
Styrene	BDL	UG/L	0.5
1,1,2-Trichloroethane	BDL	UG/L	0.5
Tetrachloroethene	BDL	UG/L	0.5
Toluene	BDL	UG/L	0.5
O-Xylene	BDL	UG/L	0.5
M/P-Xylene	BDL	UG/L	0.5
1,2,4-Trichlorobenzene	BDL	UG/L	0.5
Unregulated - Monitoring Required			
Bromobenzene	BDL	UG/L	0.5
Bromodichloromethane	BDL	UG/L	0.5
Bromoform	BDL	UG/L	0.5
Bromomethane	BDL	UG/L	0.5
Chlorodibromomethane	BDL	UG/L	0.5
Chloroethane	BDL	UG/L	0.5
Chloroform	BDL	UG/L	0.5
Chloromethane	BDL	UG/L	0.5
2-Chlorotoluene	BDL	UG/L	0.5
4-Chlorotoluene	BDL	UG/L	0.5
Dibromomethane	BDL	UG/L	0.5
1,3-Dichlorobenzene	BDL	UG/L	0.5
1,1-Dichloroethane	BDL	UG/L	0.5
1,1-Dichloropropene	BDL	UG/L	0.5
1,3-Dichloropropane	BDL	UG/L	0.5
Cis-1,3-Dichloropropene	BDL	UG/L	0.5
Trans-1,3-Dichloropropene	BDL	UG/L	0.5
2,2-Dichloropropane	BDL	UG/L	0.5
1,1,1,2-Tetrachloroethane	BDL	UG/L	0.5
1,1,2,2-Tetrachloroethane	BDL	UG/L	0.5
1,2,3-Trichloropropane	BDL	UG/L	0.5

HERITAGE
EPA 524.2 MATRIX METHOD BLANK
VOLATILE ORGANIC COMPOUNDS IN DRINKING WATER, GC/MS (CAPILLARY COLUMN)

GC/MS VOA Data File:>8785j

Date/Time of Analysis: 11/18/96 11:00

Analyte List	Result	Units	Limit
Monitored at State's Discretion			
Bromochloromethane	BDL	UG/L	0.5
N-Butylbenzene	BDL	UG/L	0.5
Dichlorodifluoromethane	BDL	UG/L	0.5
Trichlorofluoromethane	BDL	UG/L	0.5
Hexachlorobutadiene	BDL	UG/L	0.5
Isopropylbenzene	BDL	UG/L	0.5
4-Isopropyltoluene	BDL	UG/L	0.5
Naphthalene	BDL	UG/L	0.5
N-Propylbenzene	BDL	UG/L	0.5
Sec-Butylbenzene	BDL	UG/L	0.5
Tert-Butylbenzene	BDL	UG/L	0.5
1,2,3-Trichlorobenzene	BDL	UG/L	0.5
1,2,4-Trimethylbenzene	BDL	UG/L	0.5
1,3,5-Trimethylbenzene	BDL	UG/L	0.5
Acetone	BDL	UG/L	0.5
Tetrahydrofuran	BDL	UG/L	0.5
Methyl Ethyl Ketone	BDL	UG/L	0.5
4-Methyl-2-Pentanone	BDL	UG/L	0.5

Surrogate Recovery		
Dichloroethane-D4	111	% RECOVERY
Toluene-D8	87	% RECOVERY
4-Bromofluorobenzene	91	% RECOVERY

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.569	4.7
3	P	Chloromethane	0.431	0.408	5.3
4	C	VINYL CHLORIDE	0.356	0.365	2.5
5		Bromomethane	0.437	0.446	2.1
6		Chloroethane	0.267	0.263	1.5
7		Trichlorofluoromethane	1.592	1.503	5.6
8		Acrolein	0.289	0.189	34.6#
9		Diethyl Ether	0.240	0.262	9.2
		Acetone	0.130	0.068	47.7#
11	CM	1,1-DICHLOROETHENE	0.477	0.425	10.9
12		Methylene Chloride	0.507	0.458	9.7
13		Acrylonitrile	0.626	0.416	33.5#
14		Carbon Disulfide	0.911	0.823	9.7
15		Vinyl Acetate	0.215	0.191	11.2
16		trans-1,2-Dichloroethene	0.479	0.469	2.1
17	P	1,1-Dichloroethane	1.009	0.986	2.3
18		Methyl-t-butyl Ether	0.875	0.968	10.6
19		Diispropyl Ether	2.050	2.146	4.7
20		2-Butanone	0.157	0.143	8.9
21		cis-1,2-Dichloroethene	0.521	0.519	0.4
22	C	CHLOROFORM	1.008	1.023	1.5
23		Bromochloromethane	0.281	0.272	3.2
24		2,2-Dichloropropane	0.825	0.893	8.2
25		Tetrahyrofuran	0.211	0.201	4.7
26		1,1,1-Trichloroethane	1.199	1.321	10.2
27		Iodomethane	0.791	0.737	6.8
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.578	1.7
30	S	1,2-Dichloroethane-d4	0.524	0.521	0.6
31		Carbon Tetrachloride	0.964	0.996	3.3
32		1,2-Dichloroethane	0.643	0.644	0.2
33	M	Benzene	0.997	0.968	2.9
34	M	Trichloroethene	0.473	0.449	5.1
	C	1,2-DICHLOROPROPANE	0.535	0.529	1.1
36		Bromodichloromethane	0.933	0.917	1.7
37		Dibromomethane	0.442	0.417	5.7
38		4-Methyl-2-Pentanone	0.585	0.501	14.4
39		2-Chloroethylvinylether	0.185	0.168	9.2

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.660	2.8
41	S	Toluene-d8	1.432	1.305	8.9
42	CM	TOLUENE	1.382	1.248	9.7
43		trans-1,3-Dichloropropene	0.635	0.600	5.5
44		1,1,2-Trichloroethane	0.467	0.434	7.1
45		1,2-Dibromoethane	0.749	0.681	9.1
46	S	4-Bromofluorobenzene	0.981	0.906	7.6
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.288	13.5
		1,3-Dichloropropane	0.828	0.833	0.6
50		Tetrachloroethene	0.778	0.733	5.8
51		Dibromochloromethane	0.969	0.984	1.5
52	PM	Chlorobenzene	1.461	1.416	3.1
53		1,1,1,2-Tetrachloroethane	0.759	0.751	1.1
54	C	ETHYL BENZENE	0.712	0.692	2.8
55		m,p-Xylene	0.839	0.814	3.0
56		o-Xylene	0.759	0.764	0.7
57		Styrene	1.456	1.401	3.8
58	P	Bromoform	0.678	0.656	3.2
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	5.596	0.4
61		trans-1,4-Dichloro-2-butene	0.522	0.505	3.3
62	P	1,1,2,2-Tetrachloroethane	1.859	1.790	3.7
63		Bromobenzene	3.168	3.293	3.9
64		1,2,3-Trichloropropane	0.649	0.550	15.3
65		n-Propylbenzene	0.647	0.679	4.9
66		1,3,5-Trimethylbenzene	3.420	2.928	14.4
67		2-Chlorotoluene	1.019	1.050	3.0
68		4-Chlorotoluene	1.149	1.204	4.8
69		t-Butylbenzene	4.251	4.272	0.5
70		1,2,4-Trimethylbenzene	3.247	2.492	23.3#
71		sec-Butylbenzene	6.259	6.256	0.0
72		p-Isopropyltoluene	3.844	3.416	11.1
		1,3-Dichlorobenzene	2.133	2.115	0.8
74		1,2,3-Trimethylbenzene	3.257	2.341	28.1#
75		1,4-Dichlorobenzene	2.081	1.996	4.1
76		n-Butylbenzene	1.920	1.540	19.8
77		1,2-Dichlorobenzene	1.962	1.891	3.6
78		1,2-Dibromo-3-chloropropane	0.390	0.354	9.2

Continuing Calibration Report

Data File : C:\I112296\8830J.D
Acq On : 22 Nov 96 5:47 am
Sample : VSTD050
Misc : CALIBRATION CHECK 11/22/96

Vial: 7
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.447	47.9#
80	Naphthalene	0.882	0.576	34.7#
81	Hexachlorobutadiene	0.901	0.859	4.7
82	1,2,3-Trichlorobenzene	0.656	0.358	45.4#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8849j
Analysis Date/Time:11/22/96 8:21

Analyte List	Result	DL	Units
Benzene	BDL	5	uG/L
Bromobenzene	BDL	5	uG/L
Bromochloromethane	BDL	5	uG/L
Bromodichloromethane	BDL	5	uG/L
Bromoform	BDL	5	uG/L
Bromomethane	BDL	5	uG/L
n-Butylbenzene	BDL	5	uG/L
tert-Butylbenzene	BDL	5	uG/L
Carbon tetrachloride	BDL	5	uG/L
Chlorobenzene	BDL	5	uG/L
Chloroethane	BDL	5	uG/L
Chloroform	BDL	5	uG/L
Chloromethane	BDL	5	uG/L
2-Chlorotoluene	BDL	5	uG/L
4-Chlorotoluene	BDL	5	uG/L
Dibromochloromethane	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane	BDL	5	uG/L
1,2-Dibromoethane	BDL	5	uG/L
Dibromomethane	BDL	5	uG/L
1,2-Dichlorobenzene	BDL	5	uG/L
1,3-Dichlorobenzene	BDL	5	uG/L
1,4-Dichlorobenzene	BDL	5	uG/L
Dichlorodifluoromethane	BDL	5	uG/L
1,1-Dichloroethane	BDL	5	uG/L
1,2-Dichloroethane	BDL	5	uG/L
1,1-Dichloroethene	BDL	5	uG/L
cis-1,2-Dichloroethene	BDL	5	uG/L
trans-1,2-Dichloroethene	BDL	5	uG/L
1,2-Dichloropropane	BDL	5	uG/L
1,3-Dichloropropane	BDL	5	uG/L
2,2-Dichloropropane	BDL	5	uG/L
1,1-Dichloropropene	BDL	5	uG/L
cis-1,3-Dichloropropene	BDL	5	uG/L
trans-1,3-Dichloropropene	BDL	5	uG/L
Ethyl Benzene	BDL	5	uG/L
Hexachlorobutadiene	BDL	5	uG/L
Isopropylbenzene	BDL	5	uG/L
Dichloromethane	BDL	5	uG/L
Naphthalene	BDL	5	uG/L
N-Propylbenzene	BDL	5	uG/L
Styrene	BDL	5	uG/L
1,1,1,2-Tetrachloroethane	BDL	5	uG/L
1,1,2,2-Tetrachloroethane	BDL	5	uG/L
Tetrachloroethane	BDL	5	uG/L
Toluene	BDL	5	uG/L
1,2,3-Trichloropropane	BDL	5	uG/L
1,2,4-Trichlorobenzene	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8849j
Analysis Date/Time:11/22/96 8:21

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	119	% Recovery
Toluene-d8.....	93	% Recovery
4-Bromofluorobenzene.....	101	% Recovery

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.615	3.0
3	P	Chloromethane	0.431	0.451	4.6
4	C	VINYL CHLORIDE	0.356	0.413	16.0
5		Bromomethane	0.437	0.477	9.2
6		Chloroethane	0.267	0.300	12.4
7		Trichlorofluoromethane	1.592	1.576	1.0
8		Acrolein	0.289	0.113	60.9#
9		Diethyl Ether	0.240	0.287	19.6
		Acetone	0.130	0.086	33.8#
11	CM	1,1-DICHLOROETHENE	0.477	0.459	3.8
12		Methylene Chloride	0.507	0.525	3.6
13		Acrylonitrile	0.626	0.271	56.7#
14		Carbon Disulfide	0.911	0.902	1.0
15		Vinyl Acetate	0.215	0.225	4.7
16		trans-1,2-Dichloroethene	0.479	0.493	2.9
17	P	1,1-Dichloroethane	1.009	1.068	5.8
18		Methyl-t-butyl Ether	0.875	1.065	21.7#
19		Diispropyl Ether	2.050	2.442	19.1
20		2-Butanone	0.157	0.090	42.7#
21		cis-1,2-Dichloroethene	0.521	0.554	6.3
22	C	CHLOROFORM	1.008	1.112	10.3
23		Bromochloromethane	0.281	0.292	3.9
24		2,2-Dichloropropane	0.825	0.970	17.6
25		Tetrahyrofuran	0.211	0.229	8.5
26		1,1,1-Trichloroethane	1.199	1.427	19.0
27		Iodomethane	0.791	0.818	3.4
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.641	9.0
30	S	1,2-Dichloroethane-d4	0.524	0.512	2.3
31		Carbon Tetrachloride	0.964	1.046	8.5
32		1,2-Dichloroethane	0.643	0.693	7.8
33	M	Benzene	0.997	1.086	8.9
34	M	Trichloroethene	0.473	0.496	4.9
	C	1,2-DICHLOROPROPANE	0.535	0.586	9.5
36		Bromodichloromethane	0.933	0.998	7.0
37		Dibromomethane	0.442	0.460	4.1
38		4-Methyl-2-Pentanone	0.585	0.437	25.3#
39		2-Chloroethylvinylether	0.185	0.204	10.3

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.757	11.5
41	S	Toluene-d8	1.432	1.360	5.0
42	CM	TOLUENE	1.382	1.411	2.1
43		trans-1,3-Dichloropropene	0.635	0.681	7.2
44		1,1,2-Trichloroethane	0.467	0.498	6.6
45		1,2-Dibromoethane	0.749	0.763	1.9
46	S	4-Bromofluorobenzene	0.981	0.964	1.7
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.340	2.1
49		1,3-Dichloropropane	0.828	0.926	11.8
50		Tetrachloroethene	0.778	0.778	0.0
51		Dibromochloromethane	0.969	1.043	7.6
52	PM	Chlorobenzene	1.461	1.540	5.4
53		1,1,1,2-Tetrachloroethane	0.759	0.819	7.9
54	C	ETHYL BENZENE	0.712	0.770	8.1
55		m,p-Xylene	0.839	0.904	7.7
56		o-Xylene	0.759	0.852	12.3
57		Styrene	1.456	1.598	9.8
58	P	Bromoform	0.678	0.718	5.9
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	6.148	10.3
61		trans-1,4-Dichloro-2-butene	0.522	0.577	10.5
62	P	1,1,2,2-Tetrachloroethane	1.859	2.059	10.8
63		Bromobenzene	3.168	2.908	8.2
64		1,2,3-Trichloropropane	0.649	0.693	6.8
65		n-Propylbenzene	0.647	0.766	18.4
66		1,3,5-Trimethylbenzene	3.420	2.877	15.9
67		2-Chlorotoluene	1.019	1.303	27.9#
68		4-Chlorotoluene	1.149	1.206	5.0
69		t-Butylbenzene	4.251	4.539	6.8
70		1,2,4-Trimethylbenzene	3.247	2.364	27.2#
71		sec-Butylbenzene	6.259	6.723	7.4
72		p-Isopropyltoluene	3.844	3.445	10.4
		1,3-Dichlorobenzene	2.133	2.329	9.2
74		1,2,3-Trimethylbenzene	3.257	2.200	32.5#
75		1,4-Dichlorobenzene	2.081	2.222	6.8
76		n-Butylbenzene	1.920	1.486	22.6#
77		1,2-Dichlorobenzene	1.962	2.049	4.4
78		1,2-Dibromo-3-chloropropane	0.390	0.409	4.9

Continuing Calibration Report

Data File : C:\I112396\8860J.D
Acq On : 23 Nov 96 6:16 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/23/96

Vial: 16
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.382	55.5#
80	Naphthalene	0.882	0.463	47.5#
81	Hexachlorobutadiene	0.901	0.903	0.2
82	1,2,3-Trichlorobenzene	0.656	0.313	52.3#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8861j
Analysis Date/Time:11/23/96 7:07

Analyte List	Result	DL	Units
Benzene	BDL	5	uG/L
Bromobenzene	BDL	5	uG/L
Bromochloromethane	BDL	5	uG/L
Bromodichloromethane	BDL	5	uG/L
Bromoform	BDL	5	uG/L
Bromomethane	BDL	5	uG/L
n-Butylbenzene	BDL	5	uG/L
tert-Butylbenzene	BDL	5	uG/L
Carbon tetrachloride	BDL	5	uG/L
Chlorobenzene	BDL	5	uG/L
Chloroethane	BDL	5	uG/L
Chloroform	BDL	5	uG/L
Chloromethane	BDL	5	uG/L
2-Chlorotoluene	BDL	5	uG/L
4-Chlorotoluene	BDL	5	uG/L
Dibromochloromethane	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane	BDL	5	uG/L
1,2-Dibromoethane	BDL	5	uG/L
Dibromomethane	BDL	5	uG/L
1,2-Dichlorobenzene	BDL	5	uG/L
1,3-Dichlorobenzene	BDL	5	uG/L
1,4-Dichlorobenzene	BDL	5	uG/L
Dichlorodifluoromethane	BDL	5	uG/L
1,1-Dichloroethane	BDL	5	uG/L
1,2-Dichloroethane	BDL	5	uG/L
1,1-Dichloroethene	BDL	5	uG/L
cis-1,2-Dichloroethene	BDL	5	uG/L
trans-1,2-Dichloroethene	BDL	5	uG/L
1,2-Dichloropropane	BDL	5	uG/L
1,3-Dichloropropane	BDL	5	uG/L
2,2-Dichloropropane	BDL	5	uG/L
1,1-Dichloropropene	BDL	5	uG/L
cis-1,3-Dichloropropene	BDL	5	uG/L
trans-1,3-Dichloropropene	BDL	5	uG/L
Ethyl Benzene	BDL	5	uG/L
Hexachlorobutadiene	BDL	5	uG/L
Isopropylbenzene	BDL	5	uG/L
Dichloromethane	BDL	5	uG/L
Naphthalene	BDL	5	uG/L
N-Propylbenzene	BDL	5	uG/L
Styrene	BDL	5	uG/L
1,1,1,2-Tetrachloroethane	BDL	5	uG/L
1,1,2,2-Tetrachloroethane	BDL	5	uG/L
Tetrachloroethane	BDL	5	uG/L
Toluene	BDL	5	uG/L
1,2,3-Trichloropropane	BDL	5	uG/L
1,2,4-Trichlorobenzene	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8861j
Analysis Date/Time:11/23/96 7:07

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	114	% Recovery
Toluene-d8.....	94	% Recovery
4-Bromofluorobenzene.....	97	% Recovery

Continuing Calibration Report

Data File : C:\I112496\8880J.D Vial: 15
Acq On : 24 Nov 96 3:26 pm Operator: REGINA
Sample : VSTD050 Inst : GCMS#9
Misc : CALIBRATION CHECK 11/24/96 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
1	I	PENTAFLUOROBENZENE	1.000	1.000	0.0
2		Dichlorodifluoromethane	0.597	0.531	11.1
3	P	Chloromethane	0.431	0.437	1.4
4	C	VINYL CHLORIDE	0.356	0.399	12.1
5		Bromomethane	0.437	0.490	12.1
6		Chloroethane	0.267	0.283	6.0
7		Trichlorofluoromethane	1.592	1.313	17.5
8		Acrolein	0.289	0.047	83.7#
9		Diethyl Ether	0.240	0.228	5.0
		Acetone	0.130	0.069	46.9#
11	CM	1,1-DICHLOROETHENE	0.477	0.402	15.7
12		Methylene Chloride	0.507	0.499	1.6
13		Acrylonitrile	0.626	0.123	80.4#
14		Carbon Disulfide	0.911	0.816	10.4
15		Vinyl Acetate	0.215	0.178	17.2
16		trans-1,2-Dichloroethene	0.479	0.417	12.9
17	P	1,1-Dichloroethane	1.009	0.880	12.8
18		Methyl-t-butyl Ether	0.875	0.844	3.5
19		Diispropyl Ether	2.050	2.273	10.9
20		2-Butanone	0.157	0.136	13.4
21		cis-1,2-Dichloroethene	0.521	0.467	10.4
22	C	CHLOROFORM	1.008	0.887	12.0
23		Bromochloromethane	0.281	0.252	10.3
24		2,2-Dichloropropane	0.825	0.782	5.2
25		Tetrahyrofuran	0.211	0.097	54.0#
26		1,1,1-Trichloroethane	1.199	1.152	3.9
27		Iodomethane	0.791	0.816	3.2
28	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0
29		1,1-Dichloropropene	0.588	0.582	1.0
30	S	1,2-Dichloroethane-d4	0.524	0.428	18.3
31		Carbon Tetrachloride	0.964	0.887	8.0
32		1,2-Dichloroethane	0.643	0.564	12.3
33	M	Benzene	0.997	1.013	1.6
34	M	Trichloroethene	0.473	0.465	1.7
	C	1,2-DICHLOROPROPANE	0.535	0.548	2.4
36		Bromodichloromethane	0.933	0.860	7.8
37		Dibromomethane	0.442	0.395	10.6
38		4-Methyl-2-Pentanone	0.585	0.576	1.5
39		2-Chloroethylvinylether	0.185	0.182	1.6

(#) = Out of Range (Advisory for non CCC, SPCC)

Continuing Calibration Report

Data File : C:\I112496\8880J.D
Acq On : 24 Nov 96 3:26 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/24/96

Vial: 15
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

		Compound	AvgRF	CCRF	%Dev
40		cis-1,3-Dichloropropene	0.679	0.697	2.7
41	S	Toluene-d8	1.432	1.410	1.5
42	CM	TOLUENE	1.382	1.448	4.8
43		trans-1,3-Dichloropropene	0.635	0.645	1.6
44		1,1,2-Trichloroethane	0.467	0.484	3.6
45		1,2-Dibromoethane	0.749	0.750	0.1
46	S	4-Bromofluorobenzene	0.981	0.959	2.2
47	I	CHLOROBENZENE-d5	1.000	1.000	0.0
		2-Hexanone	0.333	0.328	1.5
49		1,3-Dichloropropane	0.828	0.866	4.6
50		Tetrachloroethene	0.778	0.793	1.9
51		Dibromochloromethane	0.969	0.958	1.1
52	PM	Chlorobenzene	1.461	1.517	3.8
53		1,1,1,2-Tetrachloroethane	0.759	0.764	0.7
54	C	ETHYL BENZENE	0.712	0.721	1.3
55		m,p-Xylene	0.839	0.869	3.6
56		o-Xylene	0.759	0.813	7.1
57		Styrene	1.456	1.519	4.3
58	P	Bromoform	0.678	0.668	1.5
59	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
60		Isopropylbenzene	5.572	5.396	3.2
61		trans-1,4-Dichloro-2-butene	0.522	0.510	2.3
62	P	1,1,2,2-Tetrachloroethane	1.859	1.839	1.1
63		Bromobenzene	3.168	2.434	23.2#
64		1,2,3-Trichloropropane	0.649	0.607	6.5
65		n-Propylbenzene	0.647	0.685	5.9
66		1,3,5-Trimethylbenzene	3.420	2.972	13.1
67		2-Chlorotoluene	1.019	1.059	3.9
68		4-Chlorotoluene	1.149	1.210	5.3
69		t-Butylbenzene	4.251	4.182	1.6
70		1,2,4-Trimethylbenzene	3.247	2.604	19.8
71		sec-Butylbenzene	6.259	6.590	5.3
72		p-Isopropyltoluene	3.844	3.689	4.0
		1,3-Dichlorobenzene	2.133	2.229	4.5
74		1,2,3-Trimethylbenzene	3.257	2.478	23.9#
75		1,4-Dichlorobenzene	2.081	2.173	4.4
76		n-Butylbenzene	1.920	1.641	14.5
77		1,2-Dichlorobenzene	1.962	2.017	2.8
78		1,2-Dibromo-3-chloropropane	0.390	0.358	8.2

Continuing Calibration Report

Data File : C:\I112496\8880J.D
Acq On : 24 Nov 96 3:26 pm
Sample : VSTD050
Misc : CALIBRATION CHECK 11/24/96

Vial: 15
Operator: REGINA
Inst : GCMS#9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\REAL8260.M
Title : 8260 VOLATILES
Last Update : Fri Nov 22 04:51:32 1996
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

cal 10 = 8821J.D cal 20 = 8822J.D cal 50 = 8823J.D
cal100 = 8824J.D cal200 = 8825J.D

	Compound	AvgRF	CCRF	%Dev
79	1,2,4-Trichlorobenzene	0.858	0.445	48.1#
80	Naphthalene	0.882	0.456	48.3#
81	Hexachlorobutadiene	0.901	1.006	11.7
82	1,2,3-Trichlorobenzene	0.656	0.341	48.0#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8896j
Analysis Date/Time:11/24/96 17:15

Analyte List	Result	DL	Units
Benzene	BDL	5	uG/L
Bromobenzene	BDL	5	uG/L
Bromochloromethane	BDL	5	uG/L
Bromodichloromethane	BDL	5	uG/L
Bromoform	BDL	5	uG/L
Bromomethane	BDL	5	uG/L
n-Butylbenzene	BDL	5	uG/L
tert-Butylbenzene	BDL	5	uG/L
Carbon tetrachloride	BDL	5	uG/L
Chlorobenzene	BDL	5	uG/L
Chloroethane	BDL	5	uG/L
Chloroform	BDL	5	uG/L
Chloromethane	BDL	5	uG/L
2-Chlorotoluene	BDL	5	uG/L
4-Chlorotoluene	BDL	5	uG/L
Dibromochloromethane	BDL	5	uG/L
1,2-Dibromo-3-Chloropropane	BDL	5	uG/L
1,2-Dibromoethane	BDL	5	uG/L
Dibromomethane	BDL	5	uG/L
1,2-Dichlorobenzene	BDL	5	uG/L
1,3-Dichlorobenzene	BDL	5	uG/L
1,4-Dichlorobenzene	BDL	5	uG/L
Dichlorodifluoromethane	BDL	5	uG/L
1,1-Dichloroethane	BDL	5	uG/L
1,2-Dichloroethane	BDL	5	uG/L
1,1-Dichloroethene	BDL	5	uG/L
cis-1,2-Dichloroethene	BDL	5	uG/L
trans-1,2-Dichloroethene	BDL	5	uG/L
1,2-Dichloropropane	BDL	5	uG/L
1,3-Dichloropropane	BDL	5	uG/L
2,2-Dichloropropane	BDL	5	uG/L
1,1-Dichloropropene	BDL	5	uG/L
cis-1,3-Dichloropropene	BDL	5	uG/L
trans-1,3-Dichloropropene	BDL	5	uG/L
Ethyl Benzene	BDL	5	uG/L
Hexachlorobutadiene	BDL	5	uG/L
Isopropylbenzene	BDL	5	uG/L
Dichloromethane	BDL	5	uG/L
Naphthalene	BDL	5	uG/L
N-Propylbenzene	BDL	5	uG/L
Styrene	BDL	5	uG/L
1,1,1,2-Tetrachloroethane	BDL	5	uG/L
1,1,2,2-Tetrachloroethane	BDL	5	uG/L
Tetrachloroethane	BDL	5	uG/L
Toluene	BDL	5	uG/L
1,2,3-Trichloropropane	BDL	5	uG/L
1,2,4-Trichlorobenzene	BDL	5	uG/L

Heritage
Volatile Analysis - Water Method Blank
Analysis Method: SW846-8260

GC/MS VOA Data File:>8896j
Analysis Date/Time:11/24/96 17:15

Analyte List	Result	DL	Units
1,1,1-Trichloroethane.....	BDL	5	uG/L
1,1,2-Trichloroethane.....	BDL	5	uG/L
Trichloroethene.....	BDL	5	uG/L
Trichlorofluoromethane.....	BDL	5	uG/L
1,2,3-Trichloropropane.....	BDL	5	uG/L
1,2,4-Trimethylbenzene.....	BDL	5	uG/L
1,3,5-Trimethylbenzene.....	BDL	5	uG/L
Vinyl Chloride.....	BDL	5	uG/L
Xylenes (o/m/p-xylene).....	BDL	5	uG/L
Hexane.....	BDL	10	uG/L
Methyl-t-butyl benzene.....	BDL	5	uG/L
Methyl-2-Pentanone.....	BDL	10	uG/L

Surrogate Recovery		
Dichloroethane-d4.....	113	% Recovery
Toluene-d8.....	96	% Recovery
4-Bromofluorobenzene.....	99	% Recovery