



October 8, 2020

Indiana Department of Environmental Management
Office of Land Quality
State Cleanup Section
100 North Senate Avenue, IGCN, Room 1101
Indianapolis, Indiana 46204-2251
Attn: Mr. Tim Johnson

RE: Status Report
Indoor Air Mitigation System Performance Sampling and
Carbon Filter Replacement
Hurricane Road Industrial Development, LLC Property
Crossroads Recycling Building Office
1062 Eastview Drive
Franklin, Indiana
IDEM SCP Site #2013-34567
Patriot Project No. 20-0317-01E

Dear Mr. Johnson:

Patriot Engineering and Environmental, Inc. (*Patriot*) is pleased to submit this report documenting the June and July 2020 monthly performance air sampling conducted following installation of an interim indoor air vapor mitigation system at the Crossroads Recycling building located on the Hurricane Road Industrial Development, LLC (HRID) property at 1062 Eastview Drive in Franklin, Indiana (the Site). This work was conducted in response to a request from the Indiana Department of Environmental Management (IDEM) to install a vapor mitigation system to reduce the concentrations of VOCs in the office space at the Crossroads Recycling building. This report describes the work activities that were conducted by *Patriot* during the June and July 2020 performance sampling events and presents our findings and conclusions relative to the Site.

PROJECT BACKGROUND

Patriot installed an Airpura C600DLX Air Purifier (C600) within the office space at the Crossroads Recycling building where indoor air concentrations of trichloroethylene (TCE) had been detected during previous vapor intrusion investigations at concentrations exceeding the Remediation Closure Guide (RCG) Commercial/Industrial Indoor Air Screening Level (IASL) of 8.8 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The C600 was installed on April 1, 2020 and placed on the ground surface in the north-west

corner of the office space. *Patriot* performed vapor intrusion sampling events immediately prior to startup of the system and at intervals of 2 days, 1 week, and 2 weeks following system setup. During each sampling event, one indoor air sample was collected from the office space over an approximately 8-hour period using a 6-liter batch-certified summa canister equipped with a laboratory calibrated flow regulator and vacuum gauge. The Summa canisters were labeled, logged onto a chain-of-custody form and delivered to the laboratory for short list VOC analyses including TCE, perchloroethylene (PCE), cis-1,2-dichloroethylene (cis-1,2-DCE), trans-1,2-dichloroethylene (trans-1,2-DCE), and vinyl chloride using U.S. EPA Method TO-15. The analytical results for these sampling events are summarized below.

Sample ID	Date	Duration	Analytical Results (ug/m ³)				
			PCE	TCE	c-DCE	t-DCE	VC
Office Baseline	4/1/2020	8 hr	1.7	86.0	ND	ND	ND
Office 48hrs	4/3/2020	8 hr	ND	14.6	ND	ND	ND
IA-6	4/9/2020	8 hr	ND	20.1	ND	ND	ND
Office- 2 Week	4/16/2020	8 hr	ND	10.5	ND	ND	ND
IDEM RCG Residential IASLs			42	2.1	NE	NE	1.7
IDEM RCG Commercial IASLs			180	8.8	NE	NE	28

Notes:

ND= Below Laboratory Reporting Limit

ug/m³ = micrograms per meter cubed

10.5 = Constituent detected above IDEM RCG Residential IASLs

180 = Constituent detected above IDEM RCG Commercial IASLs

The sampling events conducted after installation of the C600 showed a substantial reduction in TCE concentrations. Analysis of the post-installation 2-day, one-week and two-week samples reported TCE concentration reductions of 83%, 76.6% and 87.8% when compared to the initial baseline TCE concentration of 86.0 ug/m³. However, all of the samples exceeded the RCG Commercial/ Industrial IASL of 8.8 ug/m³. During each of the post-installation sampling events, *Patriot* noted that the variable airflow controller on the C600 air purifier had been turned down by the tenant to a level below the maximum volume due to noise from the unit and *Patriot* was not able to determine whether the failure to meet the mitigation goal was due to limitations of the C600 or due to the unit not being operated properly. The tenant was reinstructed on use of the C600 and was instructed that the unit must operate at full airflow volume in order to successfully remediate the Indoor Air. An “*Indoor Air Vapor Mitigation System Installation and Startup Report*” documenting the system installation and indoor air sampling was submitted to IDEM on June 4, 2020.

Patriot conducted one-month post-startup performance air sampling on May 6, 2020 and monthly performance air sampling on May 27, 2020 to document the performance

of the C600 mitigation system and determine whether break-through of the carbon filter was occurring. The samples were collected from the office space over an approximately 1-hour period using a 6-liter batch-certified summa canister. Upon arrival at the Site for the May 6, 2020 sampling event, *Patriot* noted that the tenant had set the variable airflow controller at approximately 30% of the maximum airflow. The tenant was instructed that the airflow controller needed to be set at maximum volume for proper system operation. The C600 mitigation system was operating at maximum volume at the time of the May 27, 2020 sampling event. The analytical results revealed that the TCE concentration in the indoor air sample collected on May 6, 2020, when the system was operating at approximately 30% volume, exceeded the RCG Commercial/Industrial IASL and the TCE concentration in the indoor air sample collected on May 27, 2020, when the system was operating at maximum volume, was below the RCG Commercial/Industrial IASL. The May 6 and May 27, 2020 monthly performance sampling results were submitted to IDEM in a report dated June 24, 2020 and the analytical are included in the table below.

MONTHLY PERFORMANCE AIR SAMPLING

Patriot conducted performance air sampling events during the months of June and July 2020 to document the performance of the C600 mitigation system and determine whether break-through of the carbon filter was occurring. The samples were collected from the office space over an approximately 1-hour period during the work day using a 6-liter batch-certified summa canister in a similar manner to previous sampling events. The analytical results for the June and July monthly sampling events and for the previously conducted May 2020 sampling events are summarized in the table below.

Sample ID	Date	Analytical Results (ug/m ³)				
		PCE	TCE	c-DCE	t-DCE	VC
Office 1 Month (April)	5/6/2020	4.9	33.1	ND	ND	ND
May Monthly Sample Office	5/27/2020	ND	2.5	ND	ND	ND
June Monthly Sample Office	6/8/2020	ND	2.4	ND	ND	ND
July Monthly Sample Office	7/15/2020	ND	7.0	ND	ND	ND
IDEM RCG Commercial IASLs		180	8.8	NE	NE	28

Notes:

ND = Below Laboratory Reporting Limit

ug/m³ = micrograms per meter cubed

NE = RCG Screening Level not established

10.5 = Constituent detected above IDEM RCG Commercial IASLs

As shown in the table, TCE was detected at concentrations below the RCG Commercial/Industrial IASL during the June and July monthly sampling events. No other VOCs were reported in the samples collected during the June and July 2020 monthly

sampling events. The laboratory analytical reports for the June and July sampling events are included in Attachment B.

Upon arrival at the Site for the May 27, June 8, and July 15, 2020 sampling events, *Patriot* noted that the variable airflow controller was set at the maximum airflow and the analytical results of these sampling events showed that the mitigation goal had been met. Therefore, it appears that the C600 air purifier is successfully mitigating the indoor air in the office portion of the building when it is properly operated at or near maximum airflow.

CARBON REPLACEMENT AND ONGOING PERFORMANCE MONITORING

Patriot replaced the carbon filter in the C600 air purifier immediately following collection of the July monthly air sample. The analytical data indicates that the carbon filter will successfully mitigate the indoor air in the office portion of the building for at least two to three months of continuous operation. The carbon filter will be replaced again in October 2020 unless future analytical data indicate that breakthrough has or may occur and the carbon filter should be replaced sooner.

Monthly indoor air performance air sampling will be conducted in September and October 2020 (two and three months after carbon filter replacement) to confirm that the system is successfully mitigating the air in the office area and to determine the appropriate carbon filter replacement schedule. At the request of IDEM, the indoor air office space samples will be collected over an approximately 8-hour period when the building is occupied. An additional 8-hour indoor air sample will be collected simultaneously in the warehouse portion of the building to document that the exhaust fan installed in the building continues to reduce VOCs in the warehouse area breathing air to concentrations below the RCG Commercial/Industrial IASLs. The analytical results from the September sampling will be submitted to IDEM upon receipt and a status report documenting the September and October sampling events will be submitted to IDEM following receipt of the October sampling event laboratory data.

The C600 air purifier and the warehouse area exhaust fan are intended to be interim measures to prevent personnel exposure until a permanent mitigation system can be installed or the source of the indoor air impacts is identified and remediated. *Patriot* has submitted a Work Plan for Further Site Investigation #4 to IDEM for review and approval. The Work Plan includes soil and groundwater sampling and analysis beneath the floor of Crossroads Recycling building and in the area immediately surrounding the building. The results of this investigation will be utilized to develop a plan for remediation of the soil or groundwater impacts causing the indoor air impacts or a permanent long-term mitigation system for the indoor air impacts.

Please do not hesitate to contact us if you have any questions regarding this report or if you need any additional information.

Very truly yours,

Patriot Engineering and Environmental, Inc.



James J. Cody
Project Engineer
Environmental Group



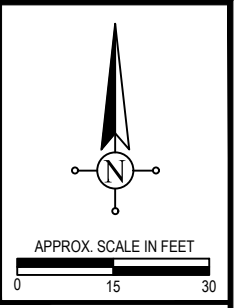
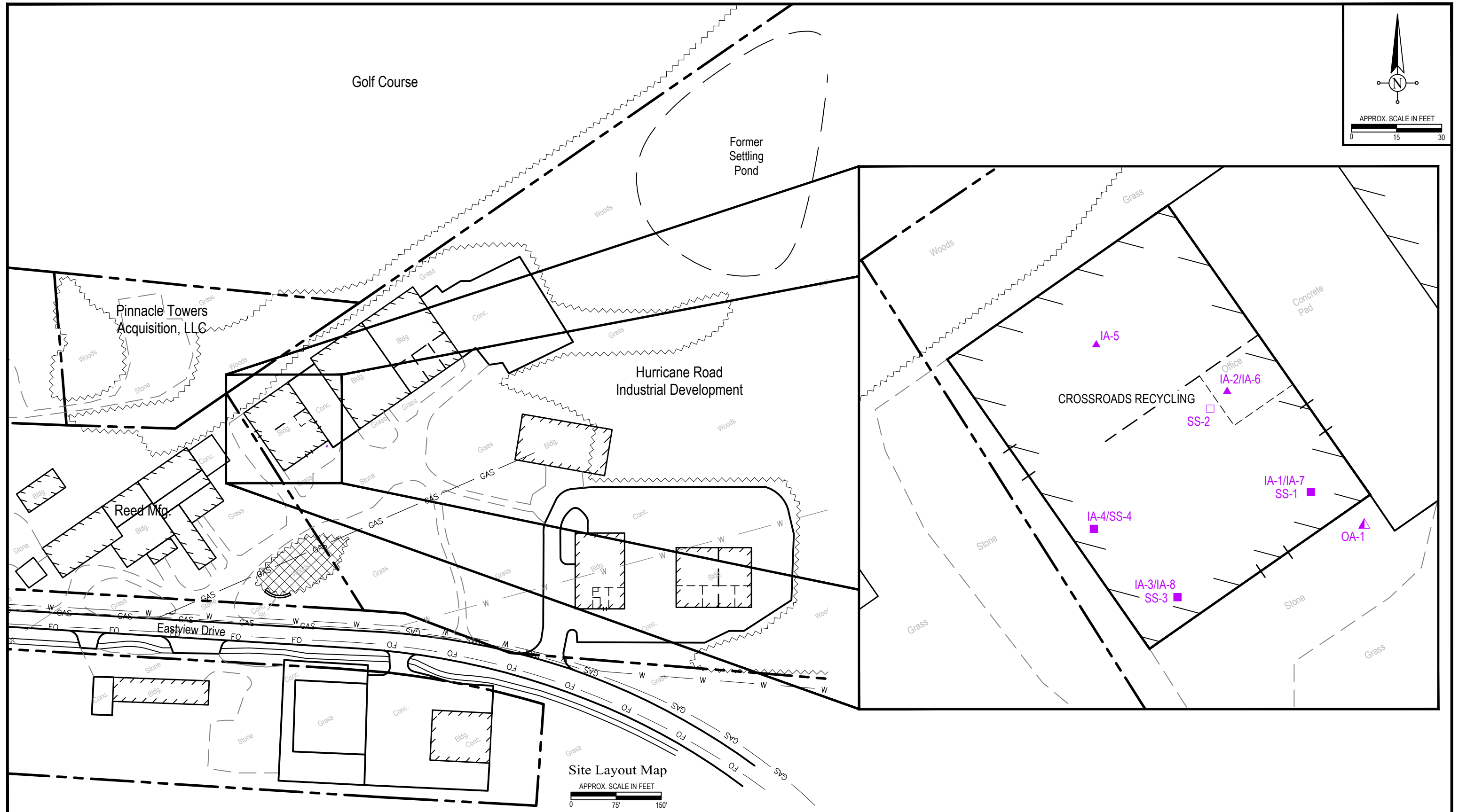
Michael F. Casper, LPG
Principal
Chief Environmental Consultant

Attachments

cc: Greg Cafouros, Kroger Gardis & Regas, LLP

Attachment A

Site Map



Site Layout Map
APPROX. SCALE IN FEET
0 75 150'



LEGEND	
	Parcel Line
	Clawson Property Boundary
	Water Line
	Gas Line
	Fiber Optic Line
	Outdoor Air Sample Location
	Indoor Air Sample Location
	Sub-Slab Vapor Sample Location
	Paired Indoor Air and Sub-Slab Vapor Sample Location
	Wooded area with fill and debris

Project: Former Houghland Tomato Cannery 1130 E. Eastview Drive Franklin, Indiana IDEM Identification No. 2013-42015	
Project Number: 19-1979-01E	Drawn By: J. DuMond
Date: March 4, 2020	Approved: J. Cody
	DWG: 19-1979-01_Ph2

Figure 1
Crossroads Recycling
Sample Location Map

Attachment B
Laboratory Reports

May 14, 2020

James Cody
Patriot Engineering
6330 East 75th. St.
Indianapolis, IN 46250

RE: Project: 20-0317-01E Crossroads Recycli
Pace Project No.: 10517364

Dear James Cody:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

cc: Mike Casper, Patriot Engineering



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01	Minnesota Dept of Ag Certification #: via MN 027-053-137
Alabama Certification #: 40770	Minnesota Petrofund Certification #: 1240
Alaska Contaminated Sites Certification #: 17-009	Mississippi Certification #: MN00064
Alaska DW Certification #: MN00064	Missouri Certification #: 10100
Arizona Certification #: AZ0014	Montana Certification #: CERT0092
Arkansas DW Certification #: MN00064	Nebraska Certification #: NE-OS-18-06
Arkansas WW Certification #: 88-0680	Nevada Certification #: MN00064
California Certification #: 2929	New Hampshire Certification #: 2081
CNMI Saipan Certification #: MP0003	New Jersey Certification #: MN002
Colorado Certification #: MN00064	New York Certification #: 11647
Connecticut Certification #: PH-0256	North Carolina DW Certification #: 27700
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Carolina WW Certification #: 530
Florida Certification #: E87605	North Dakota Certification #: R-036
Georgia Certification #: 959	Ohio DW Certification #: 41244
Guam EPA Certification #: MN00064	Ohio VAP Certification #: CL101
Hawaii Certification #: MN00064	Oklahoma Certification #: 9507
Idaho Certification #: MN00064	Oregon Primary Certification #: MN300001
Illinois Certification #: 200011	Oregon Secondary Certification #: MN200001
Indiana Certification #: C-MN-01	Pennsylvania Certification #: 68-00563
Iowa Certification #: 368	Puerto Rico Certification #: MN00064
Kansas Certification #: E-10167	South Carolina Certification #:74003001
Kentucky DW Certification #: 90062	Tennessee Certification #: TN02818
Kentucky WW Certification #: 90062	Texas Certification #: T104704192
Louisiana DEQ Certification #: 03086	Utah Certification #: MN00064
Louisiana DW Certification #: MN00064	Vermont Certification #: VT-027053137
Maine Certification #: MN00064	Virginia Certification #: 460163
Maryland Certification #: 322	Washington Certification #: C486
Massachusetts Certification #: M-MN064	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01

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SAMPLE SUMMARY

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10517364001	Office - 1 Month	Air	05/06/20 12:00	05/08/20 11:30
10517364002	Office - 1 Month Cert#0801	Air	05/06/20 12:00	05/08/20 11:30

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SAMPLE ANALYTE COUNT

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10517364001	Office - 1 Month	TO-15	MJL	5
10517364002	Office - 1 Month Cert#0801	TO-15	MJL	61

PASI-M = Pace Analytical Services - Minneapolis

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PROJECT NARRATIVE

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Method: TO-15

Description: TO15 MSV AIR

Client: Patriot Engineering-IN

Date: May 14, 2020

General Information:

1 sample was analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Method: TO-15

Description: Individual Can Certification

Client: Patriot Engineering-IN

Date: May 14, 2020

General Information:

1 sample was analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Sample: Office - 1 Month		Lab ID: 10517364001		Collected: 05/06/20 12:00		Received: 05/08/20 11:30		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	1.3	0.19	1.61		05/12/20 17:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	0.27	1.61		05/12/20 17:51	156-60-5	
Tetrachloroethene	4.9	ug/m3	1.1	0.43	1.61		05/12/20 17:51	127-18-4	
Trichloroethene	33.1	ug/m3	0.88	0.36	1.61		05/12/20 17:51	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	0.15	1.61		05/12/20 17:51	75-01-4	

Sample: Office - 1 Month Cert#0801		Lab ID: 10517364002		Collected: 05/06/20 12:00		Received: 05/08/20 11:30		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	ND	ug/m3	3.0	0.64	0.5		04/29/20 02:38	67-64-1	
Benzene	ND	ug/m3	0.16	0.065	0.5		04/29/20 02:38	71-43-2	
Benzyl chloride	ND	ug/m3	1.3	0.24	0.5		04/29/20 02:38	100-44-7	
Bromodichloromethane	ND	ug/m3	0.68	0.088	0.5		04/29/20 02:38	75-27-4	
Bromoform	ND	ug/m3	2.6	0.90	0.5		04/29/20 02:38	75-25-2	
Bromomethane	ND	ug/m3	0.39	0.073	0.5		04/29/20 02:38	74-83-9	
1,3-Butadiene	ND	ug/m3	0.22	0.052	0.5		04/29/20 02:38	106-99-0	
2-Butanone (MEK)	ND	ug/m3	1.5	0.28	0.5		04/29/20 02:38	78-93-3	
Carbon disulfide	ND	ug/m3	0.32	0.054	0.5		04/29/20 02:38	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	0.13	0.5		04/29/20 02:38	56-23-5	
Chlorobenzene	ND	ug/m3	0.47	0.066	0.5		04/29/20 02:38	108-90-7	
Chloroethane	ND	ug/m3	0.27	0.063	0.5		04/29/20 02:38	75-00-3	
Chloroform	ND	ug/m3	0.25	0.066	0.5		04/29/20 02:38	67-66-3	
Chloromethane	ND	ug/m3	0.21	0.033	0.5		04/29/20 02:38	74-87-3	
Cyclohexane	ND	ug/m3	0.88	0.073	0.5		04/29/20 02:38	110-82-7	
Dibromochloromethane	ND	ug/m3	0.86	0.20	0.5		04/29/20 02:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	0.39	0.14	0.5		04/29/20 02:38	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	0.61	0.16	0.5		04/29/20 02:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	0.61	0.24	0.5		04/29/20 02:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.5	0.37	0.5		04/29/20 02:38	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	0.50	0.084	0.5		04/29/20 02:38	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.41	0.056	0.5		04/29/20 02:38	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.21	0.084	0.5		04/29/20 02:38	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.40	0.060	0.5		04/29/20 02:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.40	0.058	0.5		04/29/20 02:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.40	0.084	0.5		04/29/20 02:38	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.47	0.10	0.5		04/29/20 02:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.46	0.19	0.5		04/29/20 02:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.46	0.13	0.5		04/29/20 02:38	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	0.71	0.079	0.5		04/29/20 02:38	76-14-2	
Ethanol	ND	ug/m3	0.96	0.47	0.5		04/29/20 02:38	64-17-5	

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ANALYTICAL RESULTS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

Sample: Office - 1 Month Cert#0801 **Lab ID: 10517364002** Collected: 05/06/20 12:00 Received: 05/08/20 11:30 Matrix: Air

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
Individual Can Certification									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Ethyl acetate	ND	ug/m3	0.37	0.092	0.5		04/29/20 02:38	141-78-6	
Ethylbenzene	ND	ug/m3	0.44	0.069	0.5		04/29/20 02:38	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.2	0.21	0.5		04/29/20 02:38	622-96-8	
n-Heptane	ND	ug/m3	0.42	0.098	0.5		04/29/20 02:38	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.7	0.62	0.5		04/29/20 02:38	87-68-3	
n-Hexane	ND	ug/m3	0.36	0.10	0.5		04/29/20 02:38	110-54-3	
2-Hexanone	ND	ug/m3	2.1	0.17	0.5		04/29/20 02:38	591-78-6	
Methylene Chloride	ND	ug/m3	1.8	0.46	0.5		04/29/20 02:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	2.1	0.088	0.5		04/29/20 02:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.8	0.050	0.5		04/29/20 02:38	1634-04-4	
Naphthalene	ND	ug/m3	1.3	0.64	0.5		04/29/20 02:38	91-20-3	
2-Propanol	ND	ug/m3	1.2	0.19	0.5		04/29/20 02:38	67-63-0	
Propylene	ND	ug/m3	0.18	0.049	0.5		04/29/20 02:38	115-07-1	
Styrene	ND	ug/m3	0.43	0.21	0.5		04/29/20 02:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.35	0.15	0.5		04/29/20 02:38	79-34-5	
Tetrachloroethene	ND	ug/m3	0.34	0.13	0.5		04/29/20 02:38	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.30	0.092	0.5		04/29/20 02:38	109-99-9	
Toluene	ND	ug/m3	0.38	0.086	0.5		04/29/20 02:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	3.8	1.7	0.5		04/29/20 02:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	0.56	0.076	0.5		04/29/20 02:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.28	0.099	0.5		04/29/20 02:38	79-00-5	
Trichloroethene	ND	ug/m3	0.27	0.11	0.5		04/29/20 02:38	79-01-6	
Trichlorofluoromethane	ND	ug/m3	0.57	0.12	0.5		04/29/20 02:38	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	0.78	0.13	0.5		04/29/20 02:38	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	0.50	0.16	0.5		04/29/20 02:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.50	0.12	0.5		04/29/20 02:38	108-67-8	
Vinyl acetate	ND	ug/m3	0.36	0.088	0.5		04/29/20 02:38	108-05-4	
Vinyl chloride	ND	ug/m3	0.13	0.048	0.5		04/29/20 02:38	75-01-4	
m&p-Xylene	ND	ug/m3	0.88	0.17	0.5		04/29/20 02:38	179601-23-1	
o-Xylene	ND	ug/m3	0.44	0.074	0.5		04/29/20 02:38	95-47-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

QC Batch: 674803

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10517364001

METHOD BLANK: 3612978

Matrix: Air

Associated Lab Samples: 10517364001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.12	05/12/20 08:18	
Tetrachloroethene	ug/m3	ND	0.69	0.27	05/12/20 08:18	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.17	05/12/20 08:18	
Trichloroethene	ug/m3	ND	0.55	0.22	05/12/20 08:18	
Vinyl chloride	ug/m3	ND	0.26	0.096	05/12/20 08:18	

LABORATORY CONTROL SAMPLE: 3612979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.6	45.4	109	70-132	
Tetrachloroethene	ug/m3	71	71.8	101	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	46.4	110	70-132	
Trichloroethene	ug/m3	56.3	62.6	111	70-132	
Vinyl chloride	ug/m3	26.7	30.2	113	68-141	

SAMPLE DUPLICATE: 3613319

Parameter	Units	10517364001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	.61J		25	
Tetrachloroethene	ug/m3	4.9	4.9	0	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	33.1	34.2	3	25	
Vinyl chloride	ug/m3	ND	ND		25	

SAMPLE DUPLICATE: 3613320

Parameter	Units	10517246002 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	9.2J		25	
Vinyl chloride	ug/m3	ND	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10517364

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20-0317-01E Crossroads Recycli
Pace Project No.: 10517364

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10517364001	Office - 1 Month	TO-15	674803		
10517364002	Office - 1 Month Cert#0801	TO-15	674528		

REPORT OF LABORATORY ANALYSIS

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WO#: 10517364

AIR: CHAIN-OF-CUSTODY //

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant



10517364

Section A Required Client Information:
 Company: **PATROL ENGINEERING**
 Address: **6150 E 754 SE**
INDIANAPOLIS, IN
 Email To: **cody@patroleng.com**
 Phone: **FAX:**
 Requested Due Date/TAT: **NORMAL**

Section B Required Project Information:
 Report To: **JAMES COOY**
 Copy To: **MIKE CASPER**
 Purchase Order No.:
 Project Name: **CROSSROADS RECYCLING**
 Project Number: **30-0317-01E**
 Pace Project Manager/Sales Rep. **35198**

Section C Invoice Information:
 Attention: **AR e-patroleng.com**
 Company Name:
 Address:
 Pace Quote Reference:
 Pace Project Manager/Sales Rep.
 Pace Profile #:

Section D Required Client Information
AIR SAMPLE ID
 Sample IDs MUST BE UNIQUE
OFFICE - 1 MONTH

Valid Media Codes
 MEDIA CODE
 Tedlar Bag 1B
 1 Liter Summa Can 1LC
 6 Liter Summa Can 6LC
 Low Volume Purif LVP
 High Volume Purif HVP
 Other PM10

COLLECTED

ITEM #	MEDIA CODE	COMPOSITE START		COMPOSITE - ENDIGRAB		Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	P1D Reading (Client only)	RELIQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
		DATE	TIME	DATE	TIME						DATE	AFFILIATION	DATE	AFFILIATION	DATE	TIME	Temp In °C	Received on Ice	Custody Sealed Cooler	Samples Intact
1	6LC	5/6/20	10:55	5/6/20	12:00	28	14	301	1471		JAMES COOY / PATROL	JAMES COOY	5-8-20	1130						
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Method:
 PM10
 3C - Fixed Gas (%)
 TO-3 BTEX
 TO-3M (Methane)
 TO-14
 TO-15 Full List VOCs
 TO-15 Short List BTEX
 TO-15 Short List Chlorinated
 TO-15 Short List Other

Reporting Units
 ug/m³ _____
 mg/m³ _____
 PPBV _____
 Other _____

Location of Sampling by State **IN**

Program
 UST Superfund Emissions Clean Air Act
 Voluntary Clean Up Dry Clean RCRA Other

Report Level - I. II. III. IV. Other

Comments:
 * PEE, TCE, CIS-DCE, TRANS-DCE & VC ONLY &

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: **JAMES COOY**
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed (MM/DD/YYYY): **05/06/2020**

ORIGINAL



Document Name:
Air Sample Condition Upon Receipt

Document Revised: 19Nov2019
Page 1 of 1

Document No.:
F-MN-A-106-rev.20

Pace Analytical Services -
Minneapolis

**Air Sample Condition
Upon Receipt**

Client Name:
PATRIOT ENGINEERING

Project #:

WO#: 10517364

PM: CT1

Due Date: 05/15/20

CLIENT: PATRIOT

Courier: Fed Ex UPS USPS Client
 Pace Speedee Commercial See Exception

Tracking Number: 1723 2542 3771

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Tin Can Other: _____ Temp Blank rec: Yes No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): Y

Thermometer Used: G87A9170600254
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X

Date & Initials of Person Examining Contents: 5-8-20 Cmy

Type of ice Received Blue Wet None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? (Tedlar bags not acceptable container for TO-14, TO-15 or APH) -Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact? (visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans <u>Y</u> <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge # 10AIR26 10AIR34 10AIR35 4097

Canisters

Canisters

Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
OFFICE - 1 MONTH	0801	1471	-5	+5					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Carolynne Trust

Date: 5/8/20

Page 13 of 13

June 04, 2020

James Cody
Patriot Engineering
6330 East 75th. St.
Indianapolis, IN 46250

RE: Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10519823

Dear James Cody:

Enclosed are the analytical results for sample(s) received by the laboratory on June 01, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

cc: Mike Casper, Patriot Engineering



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01	Minnesota Dept of Ag Certification #: via MN 027-053-137
Alabama Certification #: 40770	Minnesota Petrofund Certification #: 1240
Alaska Contaminated Sites Certification #: 17-009	Mississippi Certification #: MN00064
Alaska DW Certification #: MN00064	Missouri Certification #: 10100
Arizona Certification #: AZ0014	Montana Certification #: CERT0092
Arkansas DW Certification #: MN00064	Nebraska Certification #: NE-OS-18-06
Arkansas WW Certification #: 88-0680	Nevada Certification #: MN00064
California Certification #: 2929	New Hampshire Certification #: 2081
CNMI Saipan Certification #: MP0003	New Jersey Certification #: MN002
Colorado Certification #: MN00064	New York Certification #: 11647
Connecticut Certification #: PH-0256	North Carolina DW Certification #: 27700
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Carolina WW Certification #: 530
Florida Certification #: E87605	North Dakota Certification #: R-036
Georgia Certification #: 959	Ohio DW Certification #: 41244
Guam EPA Certification #: MN00064	Ohio VAP Certification #: CL101
Hawaii Certification #: MN00064	Oklahoma Certification #: 9507
Idaho Certification #: MN00064	Oregon Primary Certification #: MN300001
Illinois Certification #: 200011	Oregon Secondary Certification #: MN200001
Indiana Certification #: C-MN-01	Pennsylvania Certification #: 68-00563
Iowa Certification #: 368	Puerto Rico Certification #: MN00064
Kansas Certification #: E-10167	South Carolina Certification #: 74003001
Kentucky DW Certification #: 90062	Tennessee Certification #: TN02818
Kentucky WW Certification #: 90062	Texas Certification #: T104704192
Louisiana DEQ Certification #: 03086	Utah Certification #: MN00064
Louisiana DW Certification #: MN00064	Vermont Certification #: VT-027053137
Maine Certification #: MN00064	Virginia Certification #: 460163
Maryland Certification #: 322	Washington Certification #: C486
Massachusetts Certification #: M-MN064	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10519823001	MAY MONTHLY SAMPLE OFFICE	Air	05/27/20 13:57	06/01/20 12:00
10519823002	MAY MONTHLY SAMPLE OFFICE CERT	Air	05/27/20 13:57	06/01/20 12:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10519823001	MAY MONTHLY SAMPLE OFFICE	TO-15	MG2	5
10519823002	MAY MONTHLY SAMPLE OFFICE CERT	TO-15	MG2	5

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Method: TO-15

Description: TO15 MSV AIR

Client: Patriot Engineering-IN

Date: June 04, 2020

General Information:

1 sample was analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Method: TO-15

Description: Individual Can Certification

Client: Patriot Engineering-IN

Date: June 04, 2020

General Information:

1 sample was analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

Sample: MAY MONTHLY SAMPLE OFFICE **Lab ID: 10519823001** Collected: 05/27/20 13:57 Received: 06/01/20 12:00 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	1.3	0.19	1.64		06/02/20 18:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	0.27	1.64		06/02/20 18:56	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	0.44	1.64		06/02/20 18:56	127-18-4	
Trichloroethene	2.5	ug/m3	0.90	0.36	1.64		06/02/20 18:56	79-01-6	
Vinyl chloride	ND	ug/m3	0.43	0.16	1.64		06/02/20 18:56	75-01-4	

Sample: MAY MONTHLY SAMPLE OFFICE CERT **Lab ID: 10519823002** Collected: 05/27/20 13:57 Received: 06/01/20 12:00 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	0.40	0.058	0.5		05/18/20 13:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.40	0.084	0.5		05/18/20 13:50	156-60-5	
Tetrachloroethene	ND	ug/m3	0.34	0.13	0.5		05/18/20 13:50	127-18-4	
Trichloroethene	ND	ug/m3	0.27	0.11	0.5		05/18/20 13:50	79-01-6	
Vinyl chloride	ND	ug/m3	0.13	0.048	0.5		05/18/20 13:50	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10519823

QC Batch: 678662 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10519823001

METHOD BLANK: 3631812 Matrix: Air
Associated Lab Samples: 10519823001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	0.40	0.058	06/02/20 08:37	
Tetrachloroethene	ug/m3	ND	0.34	0.13	06/02/20 08:37	
trans-1,2-Dichloroethene	ug/m3	ND	0.40	0.084	06/02/20 08:37	
Trichloroethene	ug/m3	ND	0.27	0.11	06/02/20 08:37	
Vinyl chloride	ug/m3	ND	0.13	0.048	06/02/20 08:37	

LABORATORY CONTROL SAMPLE: 3631813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.6	44.8	108	70-132	
Tetrachloroethene	ug/m3	71	68.3	96	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	44.8	106	70-132	
Trichloroethene	ug/m3	56.3	59.9	106	70-132	
Vinyl chloride	ug/m3	26.7	28.7	107	68-141	

SAMPLE DUPLICATE: 3632987

Parameter	Units	10519726049 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<1.2	ND		25	
Tetrachloroethene	ug/m3	<1.1	ND		25	
trans-1,2-Dichloroethene	ug/m3	<1.2	ND		25	
Trichloroethene	ug/m3	<0.85	ND		25	
Vinyl chloride	ug/m3	<0.40	ND		25	

SAMPLE DUPLICATE: 3632988

Parameter	Units	10519726047 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<1.2	ND		25	
Tetrachloroethene	ug/m3	<1.1	ND		25	
trans-1,2-Dichloroethene	ug/m3	<1.2	ND		25	
Trichloroethene	ug/m3	<0.85	ND		25	
Vinyl chloride	ug/m3	<0.40	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10519823

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10519823

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10519823001	MAY MONTHLY SAMPLE OFFICE	TO-15	678662		
10519823002	MAY MONTHLY SAMPLE OFFICE CERT	TO-15	678665		

REPORT OF LABORATORY ANALYSIS

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: PARTRIOX ENGINEERING Address: 610 E 354 St INDIANAPOLIS IN Email To: joody@partriox.com Phone: 317.401.0645 Requested Due Date/TAT: 5 Day		Section B Required Project Information: Report To: JAMES COY Copy To: MIKE CASPER Purchase Order No.: Project Name: CROSSROADS RECYCLING Project Number: 20-0317-0E		Section C Invoice Information: Attention: APC@partriox.com Company Name: Address: Pace Quote Reference: Pace Project Manager/Sales Rep. Pace Profile #: 35198		Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE Valid Media Codes MEDIA CODE TB Tedlar Bag 1 Liter Summa Can 6 Liter Summa Can Low Volume Puff High Volume Puff HVP PM10 Other 1 MAN MONTHLY SAMPLE OFFICE 2 3 4 5 6 7 8 9 10 11 12					
Report To: APC@partriox.com Company Name: Address: Pace Quote Reference: Pace Project Manager/Sales Rep. Pace Profile #: 35198		COLLECTED MEDIA CODE PID Reading (Client only) DATE TIME DATE TIME 5/27/2012 13:57 5/27/2012 13:57		Canister Pressure (Initial Field - In Hg) Canister Pressure (Final Field - In Hg) Summa Can Number Flow Control Number Method: PM10 3C - Fixed Gas (%) TO-3 BTEX TO-3M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated TO-15 Short List (Other) Pace Lab ID 001,002		Program <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other Location of Sampling by State IN Reporting Units ug/m ³ _____ mg/m ³ _____ PPBV _____ PPMV _____ Other _____ Report Level II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other _____					
RELINQUISHED BY / AFFILIATION JAMES COY / PARTRIOX		ACCEPTED BY / AFFILIATION Mike Casper / Pace		DATE 5/27/2012 16:45		DATE 6/20/2012		TIME 1200		SAMPLE CONDITIONS Temp In °C Received on ice Custody Sealed Cooler Samples Intact	
Comments: 5 DAY TURN X APC, ICE, CIS-OCE, TRANS-OCE XVC ONLY *		SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: JAMES COY SIGNATURE of SAMPLER: <i>[Signature]</i>		DATE SIGNED (MM/DD/YYYY) 5/27/2012		DATE 6/20/2012		TIME 1200		SAMPLE CONDITIONS Temp In °C Received on ice Custody Sealed Cooler Samples Intact	

WO#: 10519823





**Air Sample Condition
Upon Receipt**

Client Name: Patriot

Project #: **WO# : 10519823**

Courier: Fed Ex UPS USPS Client
 Pace Speedee Commercial See Exception

PM: CT1 Due Date: 06/08/20
CLIENT: PATRIOT

Tracking Number: 1723 2542 7192

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Tin Can Other: _____ Temp Blank rec: Yes No

Temp. (TO17 and TO13 samples only) (°C): _____ Corrected Temp (°C): _____ Thermometer Used: G87A9170600254
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: _____ Date & Initials of Person Examining Contents: 6/20 M

Type of Ice Received Blue Wet None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. <u>5 Day</u>
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? (Tedlar bags not acceptable container for TO-14, TO-15 or APH) -Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact? (visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans <u>Y</u> <u>N</u> (list which samples) <u>6/20 M</u>
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge # 10AIR26 10AIR34 10AIR35 4097

Canisters

Canisters

Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>May Monthly Sample Office</u>	<u>3317</u>	<u>1319</u>	<u>-5.5</u>	<u>+5</u>					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Scott C. [Signature]

Date: 06/01/20

June 25, 2020

James Cody
Patriot Engineering
6330 East 75th. St.
Indianapolis, IN 46250

RE: Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10522391

Dear James Cody:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

cc: Mike Casper, Patriot Engineering



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01	Minnesota Petrofund Certification #: 1240
Alabama Certification #: 40770	Mississippi Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009	Missouri Certification #: 10100
Alaska DW Certification #: MN00064	Montana Certification #: CERT0092
Arizona Certification #: AZ0014	Nebraska Certification #: NE-OS-18-06
Arkansas DW Certification #: MN00064	Nevada Certification #: MN00064
Arkansas WW Certification #: 88-0680	New Hampshire Certification #: 2081
California Certification #: 2929	New Jersey Certification #: MN002
CNMI Saipan Certification #: MP0003	New York Certification #: 11647
Colorado Certification #: MN00064	North Carolina DW Certification #: 27700
Connecticut Certification #: PH-0256	North Carolina WW Certification #: 530
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification #: CL101
Guam EPA Certification #: MN00064	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky WW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: 03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Dept of Ag Certification #: via MN 027-053-137	

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10522391

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10522391001	IA-1 1HR SAMPLE	Air	06/18/20 11:11	06/22/20 10:00
10522391002	JUNE MONTHLY SAMPLE OFFICE	Air	06/18/20 11:11	06/22/20 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10522391001	IA-1 1HR SAMPLE	TO-15	MJL	5
10522391002	JUNE MONTHLY SAMPLE OFFICE	TO-15	MJL	5

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

Method: TO-15

Description: TO15 MSV AIR

Client: Patriot Engineering-IN

Date: June 25, 2020

General Information:

2 samples were analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

Sample: IA-1 1HR SAMPLE									
		Lab ID: 10522391001	Collected: 06/18/20 11:11			Received: 06/22/20 10:00		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	1.3	0.19	1.61		06/23/20 18:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	0.27	1.61		06/23/20 18:49	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	0.43	1.61		06/23/20 18:49	127-18-4	
Trichloroethene	1.1	ug/m3	0.88	0.36	1.61		06/23/20 18:49	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	0.15	1.61		06/23/20 18:49	75-01-4	

Sample: JUNE MONTHLY SAMPLE OFFICE									
		Lab ID: 10522391002	Collected: 06/18/20 11:11			Received: 06/22/20 10:00		Matrix: Air	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	1.2	0.18	1.52		06/23/20 19:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	0.25	1.52		06/23/20 19:18	156-60-5	
Tetrachloroethene	ND	ug/m3	1.0	0.41	1.52		06/23/20 19:18	127-18-4	
Trichloroethene	2.4	ug/m3	0.83	0.34	1.52		06/23/20 19:18	79-01-6	
Vinyl chloride	ND	ug/m3	0.40	0.15	1.52		06/23/20 19:18	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20-0317-01E CROSSROADS RECYCLI
Pace Project No.: 10522391

QC Batch: 682807 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10522391001, 10522391002

METHOD BLANK: 3653622 Matrix: Air
Associated Lab Samples: 10522391001, 10522391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	0.40	0.058	06/23/20 11:02	
Tetrachloroethene	ug/m3	ND	0.34	0.13	06/23/20 11:02	
trans-1,2-Dichloroethene	ug/m3	ND	0.40	0.084	06/23/20 11:02	
Trichloroethene	ug/m3	ND	0.27	0.11	06/23/20 11:02	
Vinyl chloride	ug/m3	ND	0.13	0.048	06/23/20 11:02	

LABORATORY CONTROL SAMPLE: 3653623

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.8	34.6	83	70-132	
Tetrachloroethene	ug/m3	74.9	53.8	72	70-136	
trans-1,2-Dichloroethene	ug/m3	41.9	33.8	81	70-132	
Trichloroethene	ug/m3	56.7	44.6	79	70-132	
Vinyl chloride	ug/m3	28.5	22.9	80	68-141	

SAMPLE DUPLICATE: 3654665

Parameter	Units	10522403008 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.18	ND		25	
Tetrachloroethene	ug/m3	<0.42	ND		25	
trans-1,2-Dichloroethene	ug/m3	<0.26	ND		25	
Trichloroethene	ug/m3	<0.34	ND		25	
Vinyl chloride	ug/m3	<0.15	ND		25	

SAMPLE DUPLICATE: 3654666

Parameter	Units	10522403009 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.19	ND		25	
Tetrachloroethene	ug/m3	<0.44	ND		25	
trans-1,2-Dichloroethene	ug/m3	<0.27	ND		25	
Trichloroethene	ug/m3	1.7	1.7	3	25	
Vinyl chloride	ug/m3	<0.16	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20-0317-01E CROSSROADS RECYCLI

Pace Project No.: 10522391

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10522391001	IA-1 1HR SAMPLE	TO-15	682807		
10522391002	JUNE MONTHLY SAMPLE OFFICE	TO-15	682807		

REPORT OF LABORATORY ANALYSIS

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

analytical
www.pacelabs.com

Section C
Invoice Information:
47341 Page: 1 of 1

Section B
Required Project Information:

Section C
Invoice Information:

Company: **PATRIOT ENGINEERING** Report To: **AR@patrioteng.com**
 Address: **630 E 7th St** Copy To: _____
INDIANAPOLIS, IN Purchase Order No.: _____
 Email To: **scocg@patrioteng.com** Project Name: **CROSSBARS RECYCLING**
 Phone: _____ Fax: _____
 Requested Due Date/TAT: **NORMAL** Project Number: **20-037-01E** Pace Profile #: **35198**

ITEM #	Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA Teller Bag 1 Liter Summa Can 6 Liter Summa Can Low Volume Puff High Volume Puff Other	COLLECTED		Canister Pressure (Initial Field - In Hg)	Canister Pressure (Final Field - In Hg)	Summa Can Number	Flow Control Number	Pace Lab ID
			DATE	TIME					
1	IA-1 IIR SAMPLE		6/18/20	10:05	130	7	2755	2511	X
2	SUNE MONTHLY SAMPLE OFFICE		6/18/20	10:03	130	5	2370	2527	X
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

Comments: *** RCE, TCE, CIS - see trans-see PVC ONLY ***

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
SAMES COOY/PATRIOT	6/18/20	13:00	Mark S / IIR	6-22-20	10:00	Received on Ice Custody Sealed Cooler Samples Intact

SAMPLER NAME AND SIGNATURE: **JAMES COOY**
 PRINT Name of SAMPLER: **JAMES COOY**
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed (MM/DD/YY): **06/18/20**

WO# : 10522391

10522391



Document Name:
Air Sample Condition Upon Receipt

Document Revised: 19Nov2019/
Page 1 of 1

Document No.:
F-MN-A-106-rev.20

Pace Analytical Services -
Minneapolis

Air Sample Condition
Upon Receipt

Client Name:
Patriot Eng.

Project #:

WO#: 10522391

PM: CT1

Due Date: 06/29/20

CLIENT: PATRIOT

Courier: Fed Ex UPS USPS Client
 Pace SpeeDee Commercial See Exception

Tracking Number: *1723 2543 2835*

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Tin Can Other: Temp Blank rec: Yes No

Temp. (TO17 and TO13 samples only) (°C): Corrected Temp (°C): Thermometer Used: G87A9170600254 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: Date & Initials of Person Examining Contents: *6-22-10*

Type of ice Received Blue Wet None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? (Tedlar bags not acceptable container for TO-14, TO-15 or APH)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? (visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: Air Can Airbag Filter TDT Passive		11. Individually Certified Cans Y <input checked="" type="checkbox"/> N (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge # 10AIR26 10AIR34 10AIR35 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<i>IA-1</i>	<i>2755</i>	<i>2511</i>	<i>-5</i>	<i>+5</i>					
<i>SUR</i>	<i>2370</i>	<i>2527</i>	<i>-3.5</i>	<i>+5</i>					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted:

Date/Time:

Comments/Resolution:

Project Manager Review:

Cavalyne Hart

Date:

6/22/20

July 21, 2020

James Cody
Patriot Engineering
6330 East 75th. St.
Indianapolis, IN 46250

RE: Project: 20-0317-01E Crossroads Recycli
Pace Project No.: 10525337

Dear James Cody:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

cc: Mike Casper, Patriot Engineering



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

Pace Analytical Services - Minneapolis MN

A2LA Certification #: 2926.01	Minnesota Petrofund Certification #: 1240
Alabama Certification #: 40770	Mississippi Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009	Missouri Certification #: 10100
Alaska DW Certification #: MN00064	Montana Certification #: CERT0092
Arizona Certification #: AZ0014	Nebraska Certification #: NE-OS-18-06
Arkansas DW Certification #: MN00064	Nevada Certification #: MN00064
Arkansas WW Certification #: 88-0680	New Hampshire Certification #: 2081
California Certification #: 2929	New Jersey Certification #: MN002
CNMI Saipan Certification #: MP0003	New York Certification #: 11647
Colorado Certification #: MN00064	North Carolina DW Certification #: 27700
Connecticut Certification #: PH-0256	North Carolina WW Certification #: 530
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification #: CL101
Guam EPA Certification #: MN00064	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky WW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: 03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Dept of Ag Certification #: via MN 027-053-137	

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10525337001	July Monthly Sample Office	Air	07/15/20 11:55	07/17/20 11:00

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SAMPLE ANALYTE COUNT

Project: 20-0317-01E Crossroads Recycli
Pace Project No.: 10525337

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10525337001	July Monthly Sample Office	TO-15	MJL	5

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

Method: TO-15

Description: TO15 MSV AIR

Client: Patriot Engineering-IN

Date: July 21, 2020

General Information:

1 sample was analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

Sample: July Monthly Sample Office **Lab ID:** 10525337001 Collected: 07/15/20 11:55 Received: 07/17/20 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	ND	ug/m3	1.3	0.26	1.64		07/19/20 18:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	0.28	1.64		07/19/20 18:20	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	0.47	1.64		07/19/20 18:20	127-18-4	
Trichloroethene	7.0	ug/m3	0.90	0.29	1.64		07/19/20 18:20	79-01-6	
Vinyl chloride	ND	ug/m3	0.43	0.17	1.64		07/19/20 18:20	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

QC Batch: 687716

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10525337001

METHOD BLANK: 3678276

Matrix: Air

Associated Lab Samples: 10525337001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.16	07/19/20 10:13	
Tetrachloroethene	ug/m3	ND	0.69	0.29	07/19/20 10:13	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.17	07/19/20 10:13	
Trichloroethene	ug/m3	ND	0.55	0.18	07/19/20 10:13	
Vinyl chloride	ug/m3	ND	0.26	0.10	07/19/20 10:13	

LABORATORY CONTROL SAMPLE: 3678277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.6	48.6	117	70-132	
Tetrachloroethene	ug/m3	71	79.0	111	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	49.1	116	70-132	
Trichloroethene	ug/m3	56.3	65.3	116	70-132	
Vinyl chloride	ug/m3	26.7	32.4	121	68-141	

SAMPLE DUPLICATE: 3678884

Parameter	Units	10525309001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.26	ND		25	
Tetrachloroethene	ug/m3	1.2	1.2	0	25	
trans-1,2-Dichloroethene	ug/m3	0.36J	.4J		25	
Trichloroethene	ug/m3	<0.28	ND		25	
Vinyl chloride	ug/m3	<0.16	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20-0317-01E Crossroads Recycli

Pace Project No.: 10525337

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10525337001	July Monthly Sample Office	TO-15	687716		

REPORT OF LABORATORY ANALYSIS

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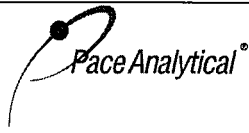


AIR: CHAIN-OF-CUSTODY
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant

WO#: 10525337



Section A Required Client Information: Company: PATRIOT ENGINEERING Address: 6150 E 75th St INDIANAPOLIS, IN Email To: jcoody@patrioteng.com Phone: _____ Requested Due Date/TAT: NORMAL		Section B Required Project Information: Report To: JAMES COOY Copy To: MIKE CASPER Purchase Order No.: _____ Project Name: CROSSROADS RECYCLING Project Number: 30-031A-DIE Pace Profile #: 35148		Section C Invoice Information: Attention: AP@patrioteng.com Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager/Sales Rep. _____		41332 Page: 1 of 1	
Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE		Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can BLC Low Volume Puff LVP High Volume Puff HVP Other PM10		COLLECTED PID Reading (Client only) MEDIA CODE DATE TIME DATE TIME COMPOSITE START COMPOSITE END DATE TIME DATE TIME		Method: PM10 3C - Fixed Gas (%) TO-3 BTEX TO-3M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated TO-15 Short List (Other)	
Item # 1 JULY MONTHLY SAMPLE OFFICE 7/15/05 7:00 US 30-616041891 Initial Field - In Hg) 30 Canister Pressure Final Field - In Hg) 30 Canister Pressure Summa Can Number Flow Control Number		RELINQUISHED BY / AFFILIATION JAMES COOY PATRIOT DATE TIME 7/15/05 7:00 US ACCEPTED BY / AFFILIATION Mike Casper DATE TIME 7/17/05 11:00		SAMPLE CONDITIONS Temp In C Received on Ice Custody Sealed Cooler Samples Intact		Reporting Units ug/m ³ _____ ppbv _____ Other _____ Program <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Comments: PCE, TCE, CIS-DEC, TRANS-DEC ONLY		SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: JAMES COOY SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY) 07/15/05		ORIGINAL		1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386	



Document Name: Sample Condition Upon Receipt (SCUR) - Air

Document Revised: 24Mar2020 Page 1 of 1

Document No.: ENV-FRM-MIN4-0113 Rev.00

Pace Analytical Services - Minneapolis

Air Sample Condition Upon Receipt

Client Name: Patriot

Project #:

WO#: 10525337

PM: CT1

Due Date: 07/24/20

CLIENT: PATRIOT

Courier: [X] Fed Ex [] UPS [] USPS [] Client [] Pace [] Speedee [] Commercial [] See Exception

Tracking Number: 1723 2944 0682

Custody Seal on Cooler/Box Present? [] Yes [X] No Seals Intact? [] Yes [X] No

Packing Material: [] Bubble Wrap [] Bubble Bags [X] Foam [] None [] Tin Can [] Other: Temp Blank rec: [] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): Corrected Temp (°C): Thermometer Used: [] G87A9170600254 [X] G87A9155100842

Temp should be above freezing to 6°C Correction Factor: Date & Initials of Person Examining Contents: RB 7/17/20

Type of ice Received [] Blue [] Wet [X] None

Comments:

Table with 13 rows of questions and checkboxes regarding chain of custody, hold times, and container integrity.

Gauge # [] 10AIR26 [] 10AIR34 [] 10AIR35 [] 4097

Canisters

Canisters

Table with columns for Sample Number, Can ID, Flow Controller, Initial Pressure, and Final Pressure for two sets of canisters.

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? [] Yes [] No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Carolynne Hunt

Date: 7/17/20