



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8122 S. Grant Highway (ISGS #3696-25)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20995 Longitude: -88.55686
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: 1110655081 BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations 2956V-03-B01 through 2956-03-B03 were sampled within the construction zone adjacent to ISGS #3696-25 (#2956V-3, Remke's Garage). Refer to PSI Report for ISGS #3696-25 (#2956V-3, Remke's Garage) including Table 4-4, and Fig

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145111-4.

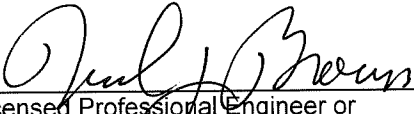
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a clean-up or removal of contaminants. All necessary documentation is attached.

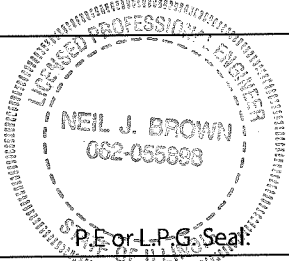
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



P.E. or L.P.G. Seal:

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-25 (Remke's Garage)			Comparison Criteria					
	2956V-03-B01	2956V-03-B02	2956V-03-B03	MACs			TACO		
BORING	2956V-03-B01 (0-4)	2956V-03-B02 (0-4)	2956V-03-B03 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil						
MATRIX	0-4	0-4	0-4						
DEPTH (feet)	8.5	8.3	8.2						
pH	--	--	--						
PID									
VOCs (mg/kg)									
Acetone	0.0088 J	0.0093 J	ND U	25	--	--	70,000	100,000	--
SVOCs (None Detected)									
Inorganics (mg/kg)									
Arsenic	1.7	2.5	3.1	11.3	13	--	13	61	--
Barium	37	57	52	1,500	--	--	5,500	14,000	--
Beryllium	0.49	0.5	0.42	22	--	--	160	410	--
Boron	10	8.3	4.7	40	--	--	16,000	41,000	--
Calcium	88,000	51,000	61,000	--	--	--	--	--	--
Chromium	11	13	14	21	--	--	230	690	--
Cobalt	5.2	4	3.4	20	--	--	4,700	12,000	--
Copper	13	12	8.9	2,900	--	--	2,900	8,200	--
Iron	9,800	11,000	12,000	15,000	15,900	--	--	--	--
Lead	4	5.4	4.4	107	--	--	400	700	--
Magnesium	35,000	26,000	32,000	325,000	--	--	--	730,000	--
Manganese	250	130	110	630	636	--	1,600	4,100	--
Mercury	0.0066 J	0.021	0.017 J	0.89	--	--	10	0.1	--
Nickel	14	12	11	100	--	--	1,600	4,100	--
Potassium	1,600	1,300	800	--	--	--	--	--	--
Silver	0.15 J	0.2 J	0.14 J	4.4	--	--	390	1,000	--
Sodium	210	350	470	--	--	--	--	--	--
Vanadium	17	24	31	550	--	--	550	1,400	--
Zinc	20	22	24	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.4 J	0.51	0.54	--	--	--	--	--	2
Manganese	0.16 L	0.31 L	0.42 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)									
Manganese	0.042	0.038	0.29 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-145111-4
Client Project/Site: IDOT - 176-001-WO041
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
7/19/2019 2:34:28 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com
Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Job ID: 500-145111-4

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-145111-4

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.1		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.42		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	61000	B	55	9.4	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.4		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	8.9		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	4.4		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	110		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	800		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.28	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	470		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	31		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	24		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.42		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0093	J	0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.5		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	8.3	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000	B	56	9.5	mg/Kg	5	☼	6010B	Total/NA
Chromium	13		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	5.4		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	350		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	22		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.038		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4) (Continued)

Lab Sample ID: 500-145111-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.021		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0088	J	0.016	0.0068	mg/Kg	1	☼	8260B	Total/NA
Arsenic	1.7		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	37		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.49		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	10	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	88000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	11		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9800		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	4.0		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		28	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	20		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.042		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0066	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-145111-16	2956V-03-B03 (0-4)	Solid	05/08/18 14:35	05/08/18 17:45	
500-145111-17	2956V-03-B02 (0-4)	Solid	05/08/18 14:59	05/08/18 17:45	
500-145111-18	2956V-03-B01 (0-4)	Solid	05/08/18 15:10	05/08/18 17:45	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Chloroethane	<0.0048 *		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Styrene	<0.0019 *		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1
Xylenes, Total	<0.0038		0.0038	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 22:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		75 - 131	05/09/18 09:07	05/16/18 22:33	1
Dibromofluoromethane	109		75 - 126	05/09/18 09:07	05/16/18 22:33	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	05/09/18 09:07	05/16/18 22:33	1
Toluene-d8 (Surr)	109		75 - 124	05/09/18 09:07	05/16/18 22:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Bis(2-chloroethyl)ether	<0.19 *		0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
N-Nitrosodi-n-propylamine	<0.077	*	0.077	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Nitroaniline	<0.19	*	0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Benzof[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	122		46 - 133				05/15/18 07:06	05/16/18 18:57	1
Phenol-d5	111		46 - 125				05/15/18 07:06	05/16/18 18:57	1
Nitrobenzene-d5	103		41 - 120				05/15/18 07:06	05/16/18 18:57	1
2-Fluorobiphenyl	115		44 - 121				05/15/18 07:06	05/16/18 18:57	1
2,4,6-Tribromophenol	100		25 - 139				05/15/18 07:06	05/16/18 18:57	1
Terphenyl-d14	140		35 - 160				05/15/18 07:06	05/16/18 18:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Arsenic	3.1		0.55	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Barium	52		0.55	0.063	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Beryllium	0.42		0.22	0.052	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Boron	4.7 B		2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Cadmium	0.14 B		0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Calcium	61000 B		55	9.4	mg/Kg	☼	05/11/18 07:44	05/16/18 03:03	5
Chromium	14		0.55	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Cobalt	3.4		0.28	0.073	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Copper	8.9		0.55	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Iron	12000		11	5.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Lead	4.4		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Magnesium	32000		5.5	2.7	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Manganese	110		0.55	0.080	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Nickel	11		0.55	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Potassium	800		28	9.8	mg/Kg	☼	05/11/18 07:44	05/16/18 02:59	1
Selenium	<0.55		0.55	0.33	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Silver	0.14 J		0.28	0.071	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Sodium	470		55	8.2	mg/Kg	☼	05/11/18 07:44	05/16/18 02:59	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Vanadium	31		0.28	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1
Zinc	24		1.1	0.49	mg/Kg	☼	05/11/18 07:44	05/11/18 23:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.54		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:53	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:53	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:53	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:53	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:53	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:53	1
Manganese	0.42		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:53	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:53	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:53	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:53	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:53	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.29		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:10	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:46	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.019	0.0064	mg/Kg	☼	05/16/18 16:45	05/17/18 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/14/18 16:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0093	J	0.017	0.0073	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Chloroethane	<0.0042	*	0.0042	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Styrene	<0.0017	*	0.0017	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	05/09/18 09:07	05/16/18 23:01	1
Dibromofluoromethane	114		75 - 126	05/09/18 09:07	05/16/18 23:01	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/09/18 09:07	05/16/18 23:01	1
Toluene-d8 (Surr)	105		75 - 124	05/09/18 09:07	05/16/18 23:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
N-Nitrosodi-n-propylamine	<0.079	*	0.079	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Isophorone	<0.20	*	0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Chloroaniline	<0.79		0.79	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Nitroaniline	<0.20	*	0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Benzof[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133	05/15/18 07:06	05/16/18 19:26	1
Phenol-d5	111		46 - 125	05/15/18 07:06	05/16/18 19:26	1
Nitrobenzene-d5	103		41 - 120	05/15/18 07:06	05/16/18 19:26	1
2-Fluorobiphenyl	116		44 - 121	05/15/18 07:06	05/16/18 19:26	1
2,4,6-Tribromophenol	97		25 - 139	05/15/18 07:06	05/16/18 19:26	1
Terphenyl-d14	141		35 - 160	05/15/18 07:06	05/16/18 19:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Arsenic	2.5		0.56	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Barium	57		0.56	0.064	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Beryllium	0.50		0.22	0.052	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Boron	8.3 B		2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Cadmium	0.12 B		0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Calcium	51000 B		56	9.5	mg/Kg	☼	05/11/18 07:44	05/16/18 03:19	5
Chromium	13		0.56	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Cobalt	4.0		0.28	0.073	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Copper	12		0.56	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Iron	11000		11	5.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Lead	5.4		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Magnesium	26000		5.6	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Manganese	130		0.56	0.081	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Nickel	12		0.56	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Potassium	1300		28	9.9	mg/Kg	☼	05/11/18 07:44	05/16/18 03:15	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Silver	0.20 J		0.28	0.072	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Sodium	350		56	8.3	mg/Kg	☼	05/11/18 07:44	05/16/18 03:15	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Vanadium	24		0.28	0.066	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1
Zinc	22		1.1	0.49	mg/Kg	☼	05/11/18 07:44	05/11/18 23:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:57	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:57	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:57	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:57	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:57	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:57	1
Manganese	0.31		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:57	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:57	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:57	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:57	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:57	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.038		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:14	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.017	0.0058	mg/Kg	☼	05/16/18 16:45	05/17/18 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/14/18 17:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0088	J	0.016	0.0068	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Chloroethane	<0.0039	*	0.0039	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Styrene	<0.0016	*	0.0016	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	05/09/18 09:07	05/16/18 23:28	1
Dibromofluoromethane	110		75 - 126	05/09/18 09:07	05/16/18 23:28	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/09/18 09:07	05/16/18 23:28	1
Toluene-d8 (Surr)	119		75 - 124	05/09/18 09:07	05/16/18 23:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Bis(2-chloroethyl)ether	<0.18	*	0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
N-Nitrosodi-n-propylamine	<0.073	*	0.073	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Isophorone	<0.18	*	0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Nitroaniline	<0.18	*	0.18	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Benzof[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1

Eurofins TestAmerica, Chicago

Client Sample Results

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Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 11:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	113		46 - 133	05/15/18 07:06	05/16/18 11:20	1
Phenol-d5	102		46 - 125	05/15/18 07:06	05/16/18 11:20	1
Nitrobenzene-d5	82		41 - 120	05/15/18 07:06	05/16/18 11:20	1
2-Fluorobiphenyl	95		44 - 121	05/15/18 07:06	05/16/18 11:20	1
2,4,6-Tribromophenol	87		25 - 139	05/15/18 07:06	05/16/18 11:20	1
Terphenyl-d14	118		35 - 160	05/15/18 07:06	05/16/18 11:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Arsenic	1.7		0.57	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Barium	37		0.57	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Beryllium	0.49		0.23	0.053	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Boron	10 B		2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Cadmium	0.15 B		0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Calcium	88000 B		110	19	mg/Kg	☼	05/11/18 07:44	05/16/18 03:28	10
Chromium	11		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Cobalt	5.2		0.28	0.074	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Copper	13		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Iron	9800		11	5.9	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Lead	4.0		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Magnesium	35000		5.7	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Manganese	250		0.57	0.082	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Nickel	14		0.57	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Potassium	1600		28	10	mg/Kg	☼	05/11/18 07:44	05/16/18 03:24	1
Selenium	<0.57		0.57	0.33	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Silver	0.15 J		0.28	0.073	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Sodium	210		57	8.4	mg/Kg	☼	05/11/18 07:44	05/16/18 03:24	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Vanadium	17		0.28	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1
Zinc	20		1.1	0.50	mg/Kg	☼	05/11/18 07:44	05/11/18 23:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 21:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 21:01	1
Boron	<0.50	F1	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 21:01	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 21:01	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 21:01	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 21:01	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 21:01	1
Lead	<0.0075	F1	0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 21:01	1
Manganese	0.16		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 21:01	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 21:01	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 21:01	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 21:01	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 21:01	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.042		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:18	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 21:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 21:00	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0066	J	0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 11:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/14/18 17:05	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

GC/MS VOA

Prep Batch: 431605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	5035	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	5035	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	5035	

Analysis Batch: 432550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	8260B	431605
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	8260B	431605
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	8260B	431605
MB 500-432550/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432550/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432550/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 432247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	3541	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	3541	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	3541	
MB 500-432247/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 432418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-432247/1-A	Method Blank	Total/NA	Solid	8270D	432247
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	8270D	432247

Analysis Batch: 432511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	8270D	432247
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	8270D	432247
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	8270D	432247

Metals

Prep Batch: 431784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	3050B	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	3050B	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	3050B	
MB 500-431784/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Leach Batch: 431855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	SPLP East	Solid	1312	
500-145111-17	2956V-03-B02 (0-4)	SPLP East	Solid	1312	
500-145111-18	2956V-03-B01 (0-4)	SPLP East	Solid	1312	
LB 500-431855/1-B	Method Blank	SPLP East	Solid	1312	
500-145111-18 MS	2956V-03-B01 (0-4)	SPLP East	Solid	1312	
500-145111-18 DU	2956V-03-B01 (0-4)	SPLP East	Solid	1312	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Metals

Leach Batch: 431857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	1311	
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	1311	
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	1311	
LB 500-431857/1-B	Method Blank	TCLP	Solid	1311	
LB 500-431857/1-C	Method Blank	TCLP	Solid	1311	
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	1311	
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	1311	

Prep Batch: 431974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	SPLP East	Solid	3010A	431855
500-145111-17	2956V-03-B02 (0-4)	SPLP East	Solid	3010A	431855
500-145111-18	2956V-03-B01 (0-4)	SPLP East	Solid	3010A	431855
LB 500-431855/1-B	Method Blank	SPLP East	Solid	3010A	431855
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-145111-18 MS	2956V-03-B01 (0-4)	SPLP East	Solid	3010A	431855
500-145111-18 DU	2956V-03-B01 (0-4)	SPLP East	Solid	3010A	431855

Prep Batch: 431975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	3010A	431857
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	3010A	431857
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	3010A	431857
LB 500-431857/1-B	Method Blank	TCLP	Solid	3010A	431857
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	3010A	431857
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	3010A	431857

Analysis Batch: 432053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	6010B	431784
MB 500-431784/1-A	Method Blank	Total/NA	Solid	6010B	431784
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	6010B	431784

Prep Batch: 432198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	7470A	431857
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	7470A	431857
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	7470A	431857
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	431857
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	7470A	431857
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	7470A	431857

Analysis Batch: 432243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	6010B	431975
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	6010B	431975

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Metals (Continued)

Analysis Batch: 432243 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	6010B	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6010B	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6010B	431975
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	6010B	431975
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	6010B	431975

Analysis Batch: 432289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	6020A	431975
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	6020A	431975
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	6020A	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6020A	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6020A	431975
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	6020A	431975
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	6020A	431975

Analysis Batch: 432510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	TCLP	Solid	7470A	432198
500-145111-17	2956V-03-B02 (0-4)	TCLP	Solid	7470A	432198
500-145111-18	2956V-03-B01 (0-4)	TCLP	Solid	7470A	432198
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	432198
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	432198
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	432198
500-145111-18 MS	2956V-03-B01 (0-4)	TCLP	Solid	7470A	432198
500-145111-18 DU	2956V-03-B01 (0-4)	TCLP	Solid	7470A	432198

Analysis Batch: 432518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	SPLP East	Solid	6010B	431974
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-17	2956V-03-B02 (0-4)	SPLP East	Solid	6010B	431974
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-18	2956V-03-B01 (0-4)	SPLP East	Solid	6010B	431974
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	6010B	431784
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	6010B	431784
LB 500-431855/1-B	Method Blank	SPLP East	Solid	6010B	431974
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	6010B	431974
500-145111-18 MS	2956V-03-B01 (0-4)	SPLP East	Solid	6010B	431974
500-145111-18 DU	2956V-03-B01 (0-4)	SPLP East	Solid	6010B	431974

Prep Batch: 432633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	7471B	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	7471B	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-145111-18 MS	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Metals (Continued)

Prep Batch: 432633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-18 MSD	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	
500-145111-18 DU	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	

Analysis Batch: 432812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	7471B	432633
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	7471B	432633
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	432633
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	432633
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	432633
500-145111-18 MS	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	432633
500-145111-18 MSD	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	432633
500-145111-18 DU	2956V-03-B01 (0-4)	Total/NA	Solid	7471B	432633

General Chemistry

Analysis Batch: 431772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	Moisture	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	Moisture	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	Moisture	

Analysis Batch: 432288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-16	2956V-03-B03 (0-4)	Total/NA	Solid	9045D	
500-145111-17	2956V-03-B02 (0-4)	Total/NA	Solid	9045D	
500-145111-18	2956V-03-B01 (0-4)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-145111-16	2956V-03-B03 (0-4)	108	109	116	109
500-145111-17	2956V-03-B02 (0-4)	91	114	105	105
500-145111-18	2956V-03-B01 (0-4)	88	110	105	119
LCS 500-432550/3	Lab Control Sample	103	106	110	97
LCSD 500-432550/4	Lab Control Sample Dup	102	107	108	110
MB 500-432550/6	Method Blank	104	128 X	131	109

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (46-133)	PHL (46-125)	NBZ (41-120)	FBP (44-121)	TBP (25-139)	TPHL (35-160)
500-145111-16	2956V-03-B03 (0-4)	122	111	103	115	100	140
500-145111-17	2956V-03-B02 (0-4)	123	111	103	116	97	141
500-145111-18	2956V-03-B01 (0-4)	113	102	82	95	87	118
LCS 500-432247/2-A	Lab Control Sample	123	126 X	128 X	93	104	116
MB 500-432247/1-A	Method Blank	119	121	120	91	102	128

Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d5

NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPHL = Terphenyl-d14

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432550/6
Matrix: Solid
Analysis Batch: 432550

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			05/16/18 15:17	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/16/18 15:17	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/16/18 15:17	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/16/18 15:17	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/16/18 15:17	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/16/18 15:17	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/16/18 15:17	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/16/18 15:17	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/16/18 15:17	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/16/18 15:17	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/16/18 15:17	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/16/18 15:17	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/16/18 15:17	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/16/18 15:17	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/16/18 15:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	104		75 - 131		05/16/18 15:17	1
Dibromofluoromethane	128	X	75 - 126		05/16/18 15:17	1
1,2-Dichloroethane-d4 (Surr)	131		70 - 134		05/16/18 15:17	1
Toluene-d8 (Surr)	109		75 - 124		05/16/18 15:17	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432550/3

Matrix: Solid

Analysis Batch: 432550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0633		mg/Kg		127	40 - 150
Benzene	0.0500	0.0540		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0456		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0556		mg/Kg		111	68 - 136
Bromomethane	0.0500	0.0403		mg/Kg		81	70 - 130
2-Butanone (MEK)	0.0500	0.0558		mg/Kg		112	47 - 138
Carbon disulfide	0.0500	0.0554		mg/Kg		111	70 - 129
Carbon tetrachloride	0.0500	0.0566		mg/Kg		113	75 - 125
Chlorobenzene	0.0500	0.0512		mg/Kg		102	50 - 150
Chloroethane	0.0500	0.0354	*	mg/Kg		71	75 - 125
Chloroform	0.0500	0.0555		mg/Kg		111	57 - 135
Chloromethane	0.0500	0.0535		mg/Kg		107	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0526		mg/Kg		105	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0438		mg/Kg		88	70 - 125
Dibromochloromethane	0.0500	0.0558		mg/Kg		112	69 - 125
1,1-Dichloroethane	0.0500	0.0539		mg/Kg		108	70 - 125
1,2-Dichloroethane	0.0500	0.0584		mg/Kg		117	70 - 130
1,1-Dichloroethene	0.0500	0.0518		mg/Kg		104	70 - 120
1,2-Dichloropropane	0.0500	0.0461		mg/Kg		92	70 - 125
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136
2-Hexanone	0.0500	0.0528		mg/Kg		106	48 - 146
Methylene Chloride	0.0500	0.0511		mg/Kg		102	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0412		mg/Kg		82	50 - 148
Methyl tert-butyl ether	0.0500	0.0544		mg/Kg		109	50 - 140
Styrene	0.0500	0.0541		mg/Kg		108	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0527		mg/Kg		105	70 - 122
Tetrachloroethene	0.0500	0.0470		mg/Kg		94	70 - 124
Toluene	0.0500	0.0472		mg/Kg		94	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0481		mg/Kg		96	70 - 125
1,1,1-Trichloroethane	0.0500	0.0577		mg/Kg		115	70 - 128
1,1,2-Trichloroethane	0.0500	0.0479		mg/Kg		96	70 - 125
Trichloroethene	0.0500	0.0453		mg/Kg		91	70 - 125
Vinyl acetate	0.0500	0.0439		mg/Kg		88	40 - 153
Vinyl chloride	0.0500	0.0529		mg/Kg		106	70 - 125
Xylenes, Total	0.100	0.106		mg/Kg		106	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		75 - 131
Dibromofluoromethane	106		75 - 126
1,2-Dichloroethane-d4 (Surr)	110		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432550/4

Matrix: Solid

Analysis Batch: 432550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0510		mg/Kg		102	40 - 150	22	30
Benzene	0.0500	0.0554		mg/Kg		111	70 - 125	3	30
Bromodichloromethane	0.0500	0.0607		mg/Kg		121	67 - 129	29	30
Bromoform	0.0500	0.0653		mg/Kg		131	68 - 136	16	30
Bromomethane	0.0500	0.0429		mg/Kg		86	70 - 130	6	30
2-Butanone (MEK)	0.0500	0.0491		mg/Kg		98	47 - 138	13	30
Carbon disulfide	0.0500	0.0566		mg/Kg		113	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0577		mg/Kg		115	75 - 125	2	30
Chlorobenzene	0.0500	0.0539		mg/Kg		108	50 - 150	5	30
Chloroethane	0.0500	0.0453		mg/Kg		91	75 - 125	25	30
Chloroform	0.0500	0.0578		mg/Kg		116	57 - 135	4	30
Chloromethane	0.0500	0.0590		mg/Kg		118	70 - 125	10	30
cis-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0578		mg/Kg		116	70 - 125	28	30
Dibromochloromethane	0.0500	0.0574		mg/Kg		115	69 - 125	3	30
1,1-Dichloroethane	0.0500	0.0544		mg/Kg		109	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0605		mg/Kg		121	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0547		mg/Kg		109	70 - 120	6	30
1,2-Dichloropropane	0.0500	0.0584		mg/Kg		117	70 - 125	23	30
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136	0	30
2-Hexanone	0.0500	0.0439		mg/Kg		88	48 - 146	18	30
Methylene Chloride	0.0500	0.0528		mg/Kg		106	70 - 126	3	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0481		mg/Kg		96	50 - 148	15	30
Methyl tert-butyl ether	0.0500	0.0560		mg/Kg		112	50 - 140	3	30
Styrene	0.0500	0.0644 *		mg/Kg		129	70 - 125	17	30
1,1,2,2-Tetrachloroethane	0.0500	0.0541		mg/Kg		108	70 - 122	3	30
Tetrachloroethene	0.0500	0.0506		mg/Kg		101	70 - 124	7	30
Toluene	0.0500	0.0566		mg/Kg		113	70 - 125	18	30
trans-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
trans-1,3-Dichloropropene	0.0500	0.0528		mg/Kg		106	70 - 125	9	30
1,1,1-Trichloroethane	0.0500	0.0604		mg/Kg		121	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0523		mg/Kg		105	70 - 125	9	30
Trichloroethene	0.0500	0.0531		mg/Kg		106	70 - 125	16	30
Vinyl acetate	0.0500	0.0453		mg/Kg		91	40 - 153	3	30
Vinyl chloride	0.0500	0.0574		mg/Kg		115	70 - 125	8	30
Xylenes, Total	0.100	0.116		mg/Kg		116	53 - 147	8	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	107		75 - 126
1,2-Dichloroethane-d4 (Surr)	108		70 - 134
Toluene-d8 (Surr)	110		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432247/1-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432247

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432247/1-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432247

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	119		46 - 133	05/15/18 07:06	05/15/18 21:30	1
Phenol-d5	121		46 - 125	05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene-d5	120		41 - 120	05/15/18 07:06	05/15/18 21:30	1
2-Fluorobiphenyl	91		44 - 121	05/15/18 07:06	05/15/18 21:30	1
2,4,6-Tribromophenol	102		25 - 139	05/15/18 07:06	05/15/18 21:30	1
Terphenyl-d14	128		35 - 160	05/15/18 07:06	05/15/18 21:30	1

Lab Sample ID: LCS 500-432247/2-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bis(2-chloroethyl)ether	1.33	1.49	*	mg/Kg		112	55 - 111
1,3-Dichlorobenzene	1.33	1.04		mg/Kg		78	60 - 110
1,4-Dichlorobenzene	1.33	1.02		mg/Kg		77	61 - 110
1,2-Dichlorobenzene	1.33	1.07		mg/Kg		80	62 - 110
2-Methylphenol	1.33	1.37		mg/Kg		103	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.21		mg/Kg		90	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.60	*	mg/Kg		120	56 - 118
Hexachloroethane	1.33	1.33		mg/Kg		99	61 - 110
2-Chlorophenol	1.33	1.27		mg/Kg		95	64 - 110
Nitrobenzene	1.33	1.41		mg/Kg		106	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.37		mg/Kg		103	60 - 112
1,2,4-Trichlorobenzene	1.33	0.953		mg/Kg		71	62 - 110
Isophorone	1.33	1.71	*	mg/Kg		128	55 - 110
2,4-Dimethylphenol	1.33	1.28		mg/Kg		96	60 - 110
Hexachlorobutadiene	1.33	0.958		mg/Kg		72	56 - 120
Naphthalene	1.33	1.11		mg/Kg		84	63 - 110
2,4-Dichlorophenol	1.33	1.02		mg/Kg		76	58 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A

Matrix: Solid

Analysis Batch: 432418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.02		mg/Kg		76	30 - 150
2,4,6-Trichlorophenol	1.33	1.10		mg/Kg		82	57 - 120
2,4,5-Trichlorophenol	1.33	1.08		mg/Kg		81	50 - 120
Hexachlorocyclopentadiene	1.33	0.927		mg/Kg		70	10 - 106
2-Methylnaphthalene	1.33	1.15		mg/Kg		86	62 - 110
2-Nitroaniline	1.33	1.88	*	mg/Kg		141	57 - 124
2-Chloronaphthalene	1.33	1.06		mg/Kg		80	64 - 110
4-Chloro-3-methylphenol	1.33	1.31		mg/Kg		98	61 - 114
2,6-Dinitrotoluene	1.33	1.28		mg/Kg		96	67 - 120
2-Nitrophenol	1.33	1.29		mg/Kg		97	60 - 120
3-Nitroaniline	1.33	0.967		mg/Kg		73	40 - 122
Dimethyl phthalate	1.33	1.37		mg/Kg		103	64 - 110
2,4-Dinitrophenol	2.67	1.03		mg/Kg		39	10 - 100
Acenaphthylene	1.33	1.10		mg/Kg		83	60 - 110
2,4-Dinitrotoluene	1.33	1.23		mg/Kg		93	62 - 117
Acenaphthene	1.33	1.03		mg/Kg		77	58 - 110
Dibenzofuran	1.33	1.04		mg/Kg		78	64 - 110
4-Nitrophenol	2.67	2.80		mg/Kg		105	30 - 122
Fluorene	1.33	1.05		mg/Kg		79	62 - 120
4-Nitroaniline	1.33	1.32		mg/Kg		99	60 - 160
4-Bromophenyl phenyl ether	1.33	1.21		mg/Kg		91	63 - 110
Hexachlorobenzene	1.33	1.34		mg/Kg		101	55 - 117
Diethyl phthalate	1.33	1.09		mg/Kg		82	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.09		mg/Kg		82	63 - 110
Pentachlorophenol	2.67	2.58		mg/Kg		97	13 - 112
N-Nitrosodiphenylamine	1.33	1.25		mg/Kg		94	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.65		mg/Kg		62	10 - 110
Phenanthrene	1.33	1.14		mg/Kg		85	62 - 120
Anthracene	1.33	1.15		mg/Kg		86	63 - 110
Carbazole	1.33	1.44		mg/Kg		108	59 - 158
Di-n-butyl phthalate	1.33	1.31		mg/Kg		98	65 - 120
Fluoranthene	1.33	1.31		mg/Kg		98	62 - 120
Pyrene	1.33	1.22		mg/Kg		92	63 - 120
Butyl benzyl phthalate	1.33	1.37		mg/Kg		103	61 - 116
Benzo[a]anthracene	1.33	1.33		mg/Kg		100	63 - 110
Chrysene	1.33	1.50		mg/Kg		113	63 - 120
3,3'-Dichlorobenzidine	1.33	1.22		mg/Kg		91	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.29		mg/Kg		97	63 - 118
Di-n-octyl phthalate	1.33	1.45		mg/Kg		109	63 - 119
Benzo[b]fluoranthene	1.33	1.24		mg/Kg		93	62 - 120
Benzo[k]fluoranthene	1.33	1.29		mg/Kg		97	65 - 120
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.33		mg/Kg		100	57 - 127
Dibenz(a,h)anthracene	1.33	1.28		mg/Kg		96	64 - 119
Benzo[g,h,i]perylene	1.33	1.36		mg/Kg		102	64 - 120
3 & 4 Methylphenol	1.33	1.34		mg/Kg		101	57 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432247

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	123		46 - 133
Phenol-d5	126	X	46 - 125
Nitrobenzene-d5	128	X	41 - 120
2-Fluorobiphenyl	93		44 - 121
2,4,6-Tribromophenol	104		25 - 139
Terphenyl-d14	116		35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431784/1-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431784

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Barium	<1.0		1.0	0.11	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Boron	0.586	J	5.0	0.47	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cadmium	0.0853	J	0.20	0.036	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Calcium	6.57	J	20	3.4	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Copper	<1.0		1.0	0.28	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Iron	<20		20	10	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Lead	<0.50		0.50	0.23	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Magnesium	<10		10	5.0	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Manganese	<1.0		1.0	0.15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Potassium	<50		50	18	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Selenium	<1.0		1.0	0.59	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Silver	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Sodium	<100		100	15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Zinc	<2.0		2.0	0.88	mg/Kg		05/11/18 07:44	05/11/18 21:37	1

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Antimony	50.0	47.4		mg/Kg		95	80 - 120
Arsenic	10.0	9.55		mg/Kg		96	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Beryllium	5.00	4.69		mg/Kg		94	80 - 120
Boron	100	86.6		mg/Kg		87	80 - 120
Cadmium	5.00	4.67		mg/Kg		93	80 - 120
Calcium	1000	931		mg/Kg		93	80 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	46.9		mg/Kg		94	80 - 120
Copper	25.0	25.1		mg/Kg		100	80 - 120
Iron	100	98.6		mg/Kg		99	80 - 120
Lead	10.0	9.11		mg/Kg		91	80 - 120
Magnesium	1000	931		mg/Kg		93	80 - 120
Manganese	50.0	46.8		mg/Kg		94	80 - 120
Nickel	50.0	46.5		mg/Kg		93	80 - 120
Potassium	1000	1070		mg/Kg		107	80 - 120
Selenium	10.0	8.64		mg/Kg		86	80 - 120
Silver	5.00	4.57		mg/Kg		91	80 - 120
Sodium	1000	1060		mg/Kg		106	80 - 120
Thallium	10.0	8.51		mg/Kg		85	80 - 120
Vanadium	50.0	47.8		mg/Kg		96	80 - 120
Zinc	50.0	45.0		mg/Kg		90	80 - 120

Lab Sample ID: LCS 500-431974/2-A
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.496		mg/L		99	80 - 120

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.492	J	mg/L		98	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	1.00	0.888		mg/L		89	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Chromium	0.200	0.190		mg/L		95	80 - 120
Cobalt	0.500	0.479		mg/L		96	80 - 120
Iron	1.00	1.07		mg/L		107	80 - 120
Lead	0.100	0.0885		mg/L		89	80 - 120
Manganese	0.500	0.483		mg/L		97	80 - 120
Nickel	0.500	0.486		mg/L		97	80 - 120
Selenium	0.100	0.0813		mg/L		81	80 - 120
Silver	0.0500	0.0471		mg/L		94	80 - 120
Zinc	0.500	0.485	J	mg/L		97	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:28	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:28	1
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1

Lab Sample ID: 500-145111-18 MS
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 431975

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Barium	0.40	J	0.500	0.878		mg/L		95	75 - 125
Beryllium	<0.0040		0.0500	0.0525		mg/L		105	75 - 125
Boron	<0.50	F1	1.00	0.738	F1	mg/L		74	75 - 125
Cadmium	<0.0050		0.0500	0.0448		mg/L		90	75 - 125
Chromium	<0.025		0.200	0.184		mg/L		92	75 - 125
Cobalt	<0.025		0.500	0.411		mg/L		82	75 - 125
Iron	<0.40		1.00	1.09		mg/L		109	75 - 125
Lead	<0.0075	F1	0.100	0.0685	F1	mg/L		68	75 - 125
Manganese	0.16		0.500	0.645		mg/L		97	75 - 125
Nickel	<0.025		0.500	0.419		mg/L		84	75 - 125
Selenium	<0.050		0.100	0.0852		mg/L		85	75 - 125
Silver	<0.025		0.0500	0.0586		mg/L		117	75 - 125
Zinc	<0.50		0.500	0.461	J	mg/L		92	75 - 125

Lab Sample ID: 500-145111-18 DU
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 431975

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Barium	0.40	J	0.399	J	mg/L		0.5	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	<0.50	F1	<0.50		mg/L		NC	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075	F1	<0.0075		mg/L		NC	20
Manganese	0.16		0.164		mg/L		1	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	<0.50		<0.50		mg/L		NC	20

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 500-431855/1-B
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 431974

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 04:53	1

Lab Sample ID: 500-145111-18 MS
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: SPLP East
Prep Batch: 431974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Manganese	0.042		0.500	0.522		mg/L		96	75 - 125

Lab Sample ID: 500-145111-18 DU
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: SPLP East
Prep Batch: 431974

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Manganese	0.042		0.0439		mg/L		5	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Antimony	0.500	0.512	^	mg/L		102	80 - 120
Thallium	0.100	0.101	^	mg/L		101	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:41	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:41	1

Lab Sample ID: 500-145111-18 MS
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 431975

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Antimony	<0.0060		0.500	0.542		mg/L		108	75 - 125
Thallium	<0.0020		0.100	0.0958		mg/L		96	75 - 125

Lab Sample ID: 500-145111-18 DU
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 431975

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-432198/12-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:20	1

Lab Sample ID: LCS 500-432198/13-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00213		mg/L		107	80 - 120

Lab Sample ID: LB 500-431857/1-C
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432198

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:25	1

Lab Sample ID: 500-145111-18 MS
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 432198

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.000849		mg/L		85	75 - 125

Lab Sample ID: 500-145111-18 DU
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: TCLP
Prep Batch: 432198

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-432633/12-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/16/18 16:45	05/17/18 10:13	1

Lab Sample ID: LCS 500-432633/13-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.152		mg/Kg		91	80 - 120

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 500-145111-18 MS
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: Total/NA
Prep Batch: 432633
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.0066	J	0.0859	0.0988		mg/Kg	☼	107	75 - 125

Lab Sample ID: 500-145111-18 MSD
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: Total/NA
Prep Batch: 432633
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.0066	J	0.0833	0.0958		mg/Kg	☼	107	75 - 125	3	20

Lab Sample ID: 500-145111-18 DU
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: 2956V-03-B01 (0-4)
Prep Type: Total/NA
Prep Batch: 432633
%Rec.

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.0066	J	0.00887	J F5	mg/Kg	☼	29	20

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:10	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:53	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:46	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:17	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288	(Start) 05/14/18 16:57 (End) 05/14/18 17:01	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-03-B03 (0-4)

Lab Sample ID: 500-145111-16

Date Collected: 05/08/18 14:35

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 22:33	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 18:57	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:59	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		5	432518	05/16/18 03:03	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:16	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 11:01	PFK	TAL CHI

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:14	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:57	EEN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:57	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:19	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
					(Start)	05/14/18 17:01		
					(End)	05/14/18 17:05		
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-03-B02 (0-4)

Lab Sample ID: 500-145111-17

Date Collected: 05/08/18 14:59

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 23:01	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 19:26	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 03:15	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		5	432518	05/16/18 03:19	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:20	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 11:03	PFK	TAL CHI

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:18	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 21:01	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 21:00	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:22	EEN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-03-B01 (0-4)

Lab Sample ID: 500-145111-18

Date Collected: 05/08/18 15:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 23:28	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 11:20	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 03:24	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432518	05/16/18 03:28	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:24	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 11:10	PFK	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-4

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145111
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
E&E		1009341-0041-02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #															
176-001-W041A		Marengo, IL		D. Wright															
Sampler		Lab PM																	
MF, SH		D. Wright																	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/TC/CP Metals	pH	Percent Solids							Comments	
			Date	Time															
16		2956V-03-B03(0-4)	5/8/8	1435	5	S	X	X	X	X	X								
17		2956V-03-B02(0-4)	5/8/18	1459	5	S	X	X	X	X	X								
18		2956V-03-B01(0-4)	5/8/18	1470	5	S	X	X	X	X	X								
/																			

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u>	Company: <u>E&E</u>	Date: <u>5/8/18</u>	Time: <u>1530</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5/8/18</u>	Time: <u>1530</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5/8/18</u>	Time: <u>1745</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>05/08/18</u>	Time: <u>1745</u>

Lab Courier:
Shipped:
Hand Delivered:

Matrix Key
 WW - Wastewater
 W - Water
 S - Soil
 SL - Sludge
 MS - Miscellaneous
 OL - Oil
 A - Air
 SE - Sediment
 SO - Soil
 L - Leachate
 WI - Wipe
 DW - Drinking Water
 O - Other

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-4

Login Number: 145111

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8119 S. Grant Highway (ISGS #3696-26)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.21008 Longitude: -88.55718
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2956-04-B02 and 2956V-04-B03 were sampled within the construction zone adjacent to ISGS 3696-26 (#2956V-4, Residence). Refer to PSI Report for ISGS 3696-26 (#2956V-4, Residence) including Table 4-4, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145111-3.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

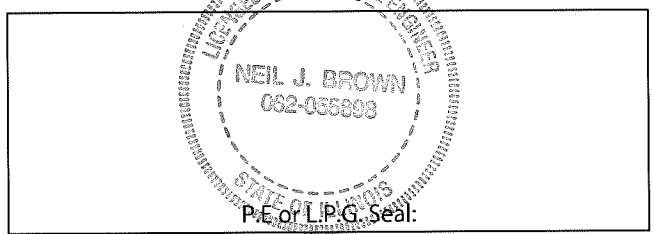
Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name: _____

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.

r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-26 (Residence)		Comparison Criteria					
BORING	2956V-04-B03		MACs			TACO		
SAMPLE	2956V-04-B03 (0-4)	2956V-04-B03 (0-4) D	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-4	0-4						
pH	7.9	8.3						
PID	--							
VOCs (None Detected)								
SVOCs (mg/kg)								
Benzo(a)anthracene	ND U	0.0082 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	0.011 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	0.017 J	0.9	2.1	1.5	2.1	170	--
Chrysene	ND U	0.013 J	88	--	--	88	17,000	--
Fluoranthene	ND U	0.015 J	3,100	--	--	3,100	82,000	--
Phenanthrene	ND U	0.0058 J	--	--	--	--	--	--
Pyrene	ND U	0.013 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Arsenic	4.5	3.6	11.3	13	--	13	61	--
Barium	100	85	1,500	--	--	5,500	14,000	--
Beryllium	0.81	0.65	22	--	--	160	410	--
Boron	6.3	8.8	40	--	--	16,000	41,000	--
Calcium	2,900 J	27,000 J	--	--	--	--	--	--
Chromium	21	17	21	--	--	230	690	--
Cobalt	8.3	7.1	20	--	--	4,700	12,000	--
Copper	15	16	2,900	--	--	2,900	8,200	--
Iron	18,000 †m	15,000	15,000	15,900	--	--	--	--
Lead	12	17	107	--	--	400	700	--
Magnesium	4,100 J	18,000 J	325,000	--	--	--	730,000	--
Manganese	340	340	630	636	--	1,600	4,100	--
Mercury	0.032	0.019	0.89	--	--	10	0.1	--
Nickel	21	16	100	--	--	1,600	4,100	--
Potassium	1,500	1,600	--	--	--	--	--	--
Selenium	0.48 J	0.38 J	1.3	--	--	390	1,000	--
Silver	0.37	0.24 J	4.4	--	--	390	1,000	--
Sodium	230	220	--	--	--	--	--	--
Vanadium	34	29	550	--	--	550	1,400	--
Zinc	62	65	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.46 J	0.54	--	--	--	--	--	2
Boron	0.059 J	ND U	--	--	--	--	--	2
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	0.21 L	0.02 J	--	--	--	--	--	0.15
Zinc	0.053 J	0.027 J	--	--	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.39 L	NA	--	--	--	--	--	0.15

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-145111-3
Client Project/Site: IDOT - 176-001-WO041
Revision: 1

For:
Ecology and Environment, Inc.
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Attn: Mr. Dean Tiebout



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Job ID: 500-145111-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-145111-3

Revised Report

Revision added to correct the client id prefix from 2273V to 2956V for samples 12 thru 18 per chains of custody.

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.5		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	100		0.61	0.070	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.81		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3	B	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	2900	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.31	0.080	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	6.4	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4100		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.61	0.089	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		31	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.48	J	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.37		0.31	0.079	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		61	9.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	34		0.31	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.053	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0058	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.015	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0082	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.013	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.017	J	0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	85		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	8.8	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.29	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	27000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.1		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D (Continued)

Lab Sample ID: 500-145111-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	16		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.57	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.24	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	220		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	29		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.019		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.020	0.0085	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.9		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	70		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	11	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	19000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.0		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	6.9		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	260		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.33		0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.57	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	32		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-145111-12	2956V-04-B03 (0-4)	Solid	05/08/18 13:45	05/08/18 17:45	
500-145111-13	2956V-04-B03 (0-4)D	Solid	05/08/18 13:45	05/08/18 17:45	
500-145111-14	2956V-04-B02 (0-4)	Solid	05/08/18 14:16	05/08/18 17:45	

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0085	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Chloroethane	<0.0049 *		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Styrene	<0.0020 *		0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/09/18 09:07	05/16/18 20:44	1
Dibromofluoromethane	108		75 - 126	05/09/18 09:07	05/16/18 20:44	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/09/18 09:07	05/16/18 20:44	1
Toluene-d8 (Surr)	116		75 - 124	05/09/18 09:07	05/16/18 20:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Bis(2-chloroethyl)ether	<0.20 *		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
N-Nitrosodi-n-propylamine	<0.082	*	0.082	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Chlorophenol	<0.20		0.20	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Isophorone	<0.20	*	0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Nitroaniline	<0.20	*	0.20	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2-Nitrophenol	<0.41		0.41	0.096	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Butyl benzyl phthalate	<0.20		0.20	0.078	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Benzof[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Di-n-octyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133				05/15/18 07:06	05/16/18 17:03	1
Phenol-d5	116		46 - 125				05/15/18 07:06	05/16/18 17:03	1
Nitrobenzene-d5	94		41 - 120				05/15/18 07:06	05/16/18 17:03	1
2-Fluorobiphenyl	104		44 - 121				05/15/18 07:06	05/16/18 17:03	1
2,4,6-Tribromophenol	98		25 - 139				05/15/18 07:06	05/16/18 17:03	1
Terphenyl-d14	141		35 - 160				05/15/18 07:06	05/16/18 17:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Arsenic	4.5		0.61	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Barium	100		0.61	0.070	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Beryllium	0.81		0.25	0.057	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Boron	6.3 B		3.1	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Cadmium	0.19 B		0.12	0.022	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Calcium	2900 B		12	2.1	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Chromium	21		0.61	0.30	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Cobalt	8.3		0.31	0.080	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Copper	15		0.61	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Iron	18000		12	6.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Lead	12		0.31	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Magnesium	4100		6.1	3.0	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Manganese	340		0.61	0.089	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Nickel	21		0.61	0.18	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Potassium	1500		31	11	mg/Kg	☼	05/11/18 07:44	05/16/18 02:39	1
Selenium	0.48 J		0.61	0.36	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Silver	0.37		0.31	0.079	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Sodium	230		61	9.1	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Thallium	<0.61		0.61	0.31	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Vanadium	34		0.31	0.072	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1
Zinc	62		1.2	0.54	mg/Kg	☼	05/11/18 07:44	05/11/18 22:52	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:28	1
Boron	0.059 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:28	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:28	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:28	1
Manganese	0.21		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:28	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:28	1
Zinc	0.053	J	0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:28	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.39		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 05:54	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:33	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:33	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.019	0.0064	mg/Kg	☼	05/16/18 16:45	05/17/18 10:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU			05/18/18 15:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0090	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Benzene	<0.0021		0.0021	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Bromodichloromethane	<0.0021		0.0021	0.00042	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Bromoform	<0.0021		0.0021	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
2-Butanone (MEK)	<0.0052		0.0052	0.0023	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Carbon tetrachloride	<0.0021		0.0021	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Chlorobenzene	<0.0021		0.0021	0.00076	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Chloroethane	<0.0052 *		0.0052	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Chloroform	<0.0021		0.0021	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Chloromethane	<0.0052		0.0052	0.0021	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Dibromochloromethane	<0.0021		0.0021	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,1-Dichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,1-Dichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,2-Dichloropropane	<0.0021		0.0021	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00073	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Ethylbenzene	<0.0021		0.0021	0.00099	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Methylene Chloride	<0.0052		0.0052	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Styrene	<0.0021 *		0.0021	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Tetrachloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Toluene	<0.0021		0.0021	0.00052	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00092	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00073	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00089	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Trichloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Vinyl acetate	<0.0052		0.0052	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Vinyl chloride	<0.0021		0.0021	0.00092	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1
Xylenes, Total	<0.0041		0.0041	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/09/18 09:07	05/16/18 21:11	1
Dibromofluoromethane	120		75 - 126	05/09/18 09:07	05/16/18 21:11	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	05/09/18 09:07	05/16/18 21:11	1
Toluene-d8 (Surr)	123		75 - 124	05/09/18 09:07	05/16/18 21:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Bis(2-chloroethyl)ether	<0.20 *		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
N-Nitrosodi-n-propylamine	<0.081	*	0.081	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Isophorone	<0.20	*	0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Nitroaniline	<0.20	*	0.20	0.054	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Phenanthrene	0.0058	J	0.040	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Fluoranthene	0.015	J	0.040	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Pyrene	0.013	J	0.040	0.0080	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Benzo[a]anthracene	0.0082	J	0.040	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.013	J	0.040	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Benzo[b]fluoranthene	0.017	J	0.040	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Benzo[a]pyrene	0.011	J	0.040	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 17:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	117		46 - 133				05/15/18 07:06	05/16/18 17:31	1
Phenol-d5	108		46 - 125				05/15/18 07:06	05/16/18 17:31	1
Nitrobenzene-d5	94		41 - 120				05/15/18 07:06	05/16/18 17:31	1
2-Fluorobiphenyl	105		44 - 121				05/15/18 07:06	05/16/18 17:31	1
2,4,6-Tribromophenol	93		25 - 139				05/15/18 07:06	05/16/18 17:31	1
Terphenyl-d14	138		35 - 160				05/15/18 07:06	05/16/18 17:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Arsenic	3.6		0.57	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Barium	85		0.57	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Beryllium	0.65		0.23	0.053	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Boron	8.8	B	2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Cadmium	0.29	B	0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Calcium	27000	B	11	1.9	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Chromium	17		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Cobalt	7.1		0.28	0.074	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Copper	16		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Iron	15000		11	5.9	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Lead	17		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Magnesium	18000		5.7	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Manganese	340		0.57	0.082	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Nickel	16		0.57	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Potassium	1600		28	10	mg/Kg	☼	05/11/18 07:44	05/16/18 02:43	1
Selenium	0.38	J	0.57	0.33	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Silver	0.24	J	0.28	0.073	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Sodium	220		57	8.4	mg/Kg	☼	05/11/18 07:44	05/16/18 02:43	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Vanadium	29		0.28	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1
Zinc	65		1.1	0.50	mg/Kg	☼	05/11/18 07:44	05/11/18 23:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.54		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:33	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:33	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:33	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:33	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:33	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:33	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:33	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:33	1
Manganese	0.020	J	0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:33	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:33	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:33	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:33	1
Zinc	0.027	J	0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:33	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:36	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:36	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.018	0.0059	mg/Kg	☼	05/16/18 16:45	05/17/18 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/14/18 16:46	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.020	0.0085	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloroethane	<0.0049	*	0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Styrene	<0.0020	*	0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Toluene	<0.0020		0.0020	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		75 - 131	05/09/18 09:07	05/16/18 21:39	1
Dibromofluoromethane	109		75 - 126	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	05/09/18 09:07	05/16/18 21:39	1
Toluene-d8 (Surr)	103		75 - 124	05/09/18 09:07	05/16/18 21:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
N-Nitrosodi-n-propylamine	<0.080	*	0.080	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Isophorone	<0.20	*	0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Nitroaniline	<0.20	*	0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzof[anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	121		46 - 133	05/15/18 07:06	05/16/18 18:00	1
Phenol-d5	111		46 - 125	05/15/18 07:06	05/16/18 18:00	1
Nitrobenzene-d5	92		41 - 120	05/15/18 07:06	05/16/18 18:00	1
2-Fluorobiphenyl	106		44 - 121	05/15/18 07:06	05/16/18 18:00	1
2,4,6-Tribromophenol	99		25 - 139	05/15/18 07:06	05/16/18 18:00	1
Terphenyl-d14	136		35 - 160	05/15/18 07:06	05/16/18 18:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Arsenic	2.9		0.57	0.20	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Barium	70		0.57	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Beryllium	0.70		0.23	0.053	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Boron	11 B		2.9	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Cadmium	0.14 B		0.11	0.021	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Calcium	19000 B		11	1.9	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Chromium	17		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Cobalt	8.0		0.29	0.075	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Copper	16		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Iron	14000		11	6.0	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Lead	6.9		0.29	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Magnesium	14000		5.7	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Manganese	260		0.57	0.083	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Nickel	23		0.57	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Potassium	1900		29	10	mg/Kg	☼	05/11/18 07:44	05/16/18 02:47	1
Selenium	0.37 J		0.57	0.34	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Silver	0.33		0.29	0.074	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Sodium	310		57	8.5	mg/Kg	☼	05/11/18 07:44	05/16/18 02:47	1
Thallium	0.39 J		0.57	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Vanadium	25		0.29	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Zinc	32		1.1	0.50	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.56		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:45	1
Boron	0.059 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:45	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:45	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:45	1
Manganese	0.44		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:45	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:45	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.57		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:02	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:39	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU			05/14/18 16:50	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

GC/MS VOA

Prep Batch: 431605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	5035	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	5035	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	5035	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	5035	

Analysis Batch: 432550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	8260B	431605
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	8260B	431605
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	8260B	431605
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	8260B	431605
MB 500-432550/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432550/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432550/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 432247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	3541	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	3541	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	3541	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	3541	
MB 500-432247/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 432418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-432247/1-A	Method Blank	Total/NA	Solid	8270D	432247
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	8270D	432247

Analysis Batch: 432511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	8270D	432247
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	8270D	432247
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	8270D	432247
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	8270D	432247

Metals

Prep Batch: 431784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	3050B	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	3050B	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	3050B	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	3050B	
MB 500-431784/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Leach Batch: 431855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	1312	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals (Continued)

Leach Batch: 431855 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	1312	
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	1312	
LB 500-431855/1-B	Method Blank	SPLP East	Solid	1312	

Leach Batch: 431857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	1311	
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	1311	
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	1311	
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	1311	
LB 500-431857/1-B	Method Blank	TCLP	Solid	1311	
LB 500-431857/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 431974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	3010A	431855
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	3010A	431855
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	3010A	431855
LB 500-431855/1-B	Method Blank	SPLP East	Solid	3010A	431855
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 431975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	3010A	431857
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	3010A	431857
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	3010A	431857
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	3010A	431857
LB 500-431857/1-B	Method Blank	TCLP	Solid	3010A	431857
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 432053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	6010B	431784
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
MB 500-431784/1-A	Method Blank	Total/NA	Solid	6010B	431784
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	6010B	431784

Prep Batch: 432198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	7470A	431857
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	7470A	431857
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	7470A	431857
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	7470A	431857
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	431857
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals

Analysis Batch: 432243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	6010B	431975
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	6010B	431975
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	6010B	431975
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	6010B	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6010B	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6010B	431975

Analysis Batch: 432289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	6020A	431975
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	6020A	431975
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	6020A	431975
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	6020A	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6020A	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6020A	431975

Analysis Batch: 432510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	7470A	432198
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	7470A	432198
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	7470A	432198
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	7470A	432198
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	432198
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	432198
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	432198

Analysis Batch: 432518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	6010B	431974
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	6010B	431784
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	6010B	431974
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	6010B	431974
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
LB 500-431855/1-B	Method Blank	SPLP East	Solid	6010B	431974
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	6010B	431974

Prep Batch: 432633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	7471B	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	7471B	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	7471B	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	7471B	
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 432812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	7471B	432633

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals (Continued)

Analysis Batch: 432812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	7471B	432633
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	7471B	432633
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	7471B	432633
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	432633
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	432633

General Chemistry

Analysis Batch: 431772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	Moisture	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	Moisture	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	Moisture	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	Moisture	

Analysis Batch: 432288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	9045D	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	9045D	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	9045D	

Analysis Batch: 433205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-145111-12	2956V-04-B03 (0-4)	102	108	107	116
500-145111-13	2956V-04-B03 (0-4)D	102	120	117	123
500-145111-14	2956V-04-B02 (0-4)	110	109	106	103
500-145111-15	2956V-04-B01 (0-4)	99	107	108	100
LCS 500-432550/3	Lab Control Sample	103	106	110	97
LCSD 500-432550/4	Lab Control Sample Dup	102	107	108	110
MB 500-432550/6	Method Blank	104	128 X	131	109

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(46-133)	(46-125)	(41-120)	(44-121)	(25-139)	(35-160)
500-145111-12	2956V-04-B03 (0-4)	123	116	94	104	98	141
500-145111-13	2956V-04-B03 (0-4)D	117	108	94	105	93	138
500-145111-14	2956V-04-B02 (0-4)	121	111	92	106	99	136
500-145111-15	2956V-04-B01 (0-4)	127	115	99	114	99	139
LCS 500-432247/2-A	Lab Control Sample	123	126 X	128 X	93	104	116
MB 500-432247/1-A	Method Blank	119	121	120	91	102	128

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432550/6
Matrix: Solid
Analysis Batch: 432550

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			05/16/18 15:17	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/16/18 15:17	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/16/18 15:17	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/16/18 15:17	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/16/18 15:17	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/16/18 15:17	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/16/18 15:17	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/16/18 15:17	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/16/18 15:17	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/16/18 15:17	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/16/18 15:17	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/16/18 15:17	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/16/18 15:17	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/16/18 15:17	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/16/18 15:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	104		75 - 131		05/16/18 15:17	1
Dibromofluoromethane	128	X	75 - 126		05/16/18 15:17	1
1,2-Dichloroethane-d4 (Surr)	131		70 - 134		05/16/18 15:17	1
Toluene-d8 (Surr)	109		75 - 124		05/16/18 15:17	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432550/3
Matrix: Solid
Analysis Batch: 432550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0633		mg/Kg		127	40 - 150
Benzene	0.0500	0.0540		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0456		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0556		mg/Kg		111	68 - 136
Bromomethane	0.0500	0.0403		mg/Kg		81	70 - 130
2-Butanone (MEK)	0.0500	0.0558		mg/Kg		112	47 - 138
Carbon disulfide	0.0500	0.0554		mg/Kg		111	70 - 129
Carbon tetrachloride	0.0500	0.0566		mg/Kg		113	75 - 125
Chlorobenzene	0.0500	0.0512		mg/Kg		102	50 - 150
Chloroethane	0.0500	0.0354	*	mg/Kg		71	75 - 125
Chloroform	0.0500	0.0555		mg/Kg		111	57 - 135
Chloromethane	0.0500	0.0535		mg/Kg		107	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0526		mg/Kg		105	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0438		mg/Kg		88	70 - 125
Dibromochloromethane	0.0500	0.0558		mg/Kg		112	69 - 125
1,1-Dichloroethane	0.0500	0.0539		mg/Kg		108	70 - 125
1,2-Dichloroethane	0.0500	0.0584		mg/Kg		117	70 - 130
1,1-Dichloroethene	0.0500	0.0518		mg/Kg		104	70 - 120
1,2-Dichloropropane	0.0500	0.0461		mg/Kg		92	70 - 125
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136
2-Hexanone	0.0500	0.0528		mg/Kg		106	48 - 146
Methylene Chloride	0.0500	0.0511		mg/Kg		102	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0412		mg/Kg		82	50 - 148
Methyl tert-butyl ether	0.0500	0.0544		mg/Kg		109	50 - 140
Styrene	0.0500	0.0541		mg/Kg		108	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0527		mg/Kg		105	70 - 122
Tetrachloroethene	0.0500	0.0470		mg/Kg		94	70 - 124
Toluene	0.0500	0.0472		mg/Kg		94	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0481		mg/Kg		96	70 - 125
1,1,1-Trichloroethane	0.0500	0.0577		mg/Kg		115	70 - 128
1,1,2-Trichloroethane	0.0500	0.0479		mg/Kg		96	70 - 125
Trichloroethene	0.0500	0.0453		mg/Kg		91	70 - 125
Vinyl acetate	0.0500	0.0439		mg/Kg		88	40 - 153
Vinyl chloride	0.0500	0.0529		mg/Kg		106	70 - 125
Xylenes, Total	0.100	0.106		mg/Kg		106	53 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		75 - 131
Dibromofluoromethane	106		75 - 126
1,2-Dichloroethane-d4 (Surr)	110		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432550/4

Matrix: Solid

Analysis Batch: 432550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0510		mg/Kg		102	40 - 150	22	30
Benzene	0.0500	0.0554		mg/Kg		111	70 - 125	3	30
Bromodichloromethane	0.0500	0.0607		mg/Kg		121	67 - 129	29	30
Bromoform	0.0500	0.0653		mg/Kg		131	68 - 136	16	30
Bromomethane	0.0500	0.0429		mg/Kg		86	70 - 130	6	30
2-Butanone (MEK)	0.0500	0.0491		mg/Kg		98	47 - 138	13	30
Carbon disulfide	0.0500	0.0566		mg/Kg		113	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0577		mg/Kg		115	75 - 125	2	30
Chlorobenzene	0.0500	0.0539		mg/Kg		108	50 - 150	5	30
Chloroethane	0.0500	0.0453		mg/Kg		91	75 - 125	25	30
Chloroform	0.0500	0.0578		mg/Kg		116	57 - 135	4	30
Chloromethane	0.0500	0.0590		mg/Kg		118	70 - 125	10	30
cis-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0578		mg/Kg		116	70 - 125	28	30
Dibromochloromethane	0.0500	0.0574		mg/Kg		115	69 - 125	3	30
1,1-Dichloroethane	0.0500	0.0544		mg/Kg		109	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0605		mg/Kg		121	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0547		mg/Kg		109	70 - 120	6	30
1,2-Dichloropropane	0.0500	0.0584		mg/Kg		117	70 - 125	23	30
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136	0	30
2-Hexanone	0.0500	0.0439		mg/Kg		88	48 - 146	18	30
Methylene Chloride	0.0500	0.0528		mg/Kg		106	70 - 126	3	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0481		mg/Kg		96	50 - 148	15	30
Methyl tert-butyl ether	0.0500	0.0560		mg/Kg		112	50 - 140	3	30
Styrene	0.0500	0.0644 *		mg/Kg		129	70 - 125	17	30
1,1,2,2-Tetrachloroethane	0.0500	0.0541		mg/Kg		108	70 - 122	3	30
Tetrachloroethene	0.0500	0.0506		mg/Kg		101	70 - 124	7	30
Toluene	0.0500	0.0566		mg/Kg		113	70 - 125	18	30
trans-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
trans-1,3-Dichloropropene	0.0500	0.0528		mg/Kg		106	70 - 125	9	30
1,1,1-Trichloroethane	0.0500	0.0604		mg/Kg		121	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0523		mg/Kg		105	70 - 125	9	30
Trichloroethene	0.0500	0.0531		mg/Kg		106	70 - 125	16	30
Vinyl acetate	0.0500	0.0453		mg/Kg		91	40 - 153	3	30
Vinyl chloride	0.0500	0.0574		mg/Kg		115	70 - 125	8	30
Xylenes, Total	0.100	0.116		mg/Kg		116	53 - 147	8	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	107		75 - 126
1,2-Dichloroethane-d4 (Surr)	108		70 - 134
Toluene-d8 (Surr)	110		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432247/1-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432247

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432247/1-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	119		46 - 133	05/15/18 07:06	05/15/18 21:30	1
Phenol-d5	121		46 - 125	05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene-d5	120		41 - 120	05/15/18 07:06	05/15/18 21:30	1
2-Fluorobiphenyl	91		44 - 121	05/15/18 07:06	05/15/18 21:30	1
2,4,6-Tribromophenol	102		25 - 139	05/15/18 07:06	05/15/18 21:30	1
Terphenyl-d14	128		35 - 160	05/15/18 07:06	05/15/18 21:30	1

Lab Sample ID: LCS 500-432247/2-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.50		mg/Kg		112	56 - 122
Bis(2-chloroethyl)ether	1.33	1.49	*	mg/Kg		112	55 - 111
1,3-Dichlorobenzene	1.33	1.04		mg/Kg		78	60 - 110
1,4-Dichlorobenzene	1.33	1.02		mg/Kg		77	61 - 110
1,2-Dichlorobenzene	1.33	1.07		mg/Kg		80	62 - 110
2-Methylphenol	1.33	1.37		mg/Kg		103	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.21		mg/Kg		90	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.60	*	mg/Kg		120	56 - 118
Hexachloroethane	1.33	1.33		mg/Kg		99	61 - 110
2-Chlorophenol	1.33	1.27		mg/Kg		95	64 - 110
Nitrobenzene	1.33	1.41		mg/Kg		106	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.37		mg/Kg		103	60 - 112
1,2,4-Trichlorobenzene	1.33	0.953		mg/Kg		71	62 - 110
Isophorone	1.33	1.71	*	mg/Kg		128	55 - 110
2,4-Dimethylphenol	1.33	1.28		mg/Kg		96	60 - 110
Hexachlorobutadiene	1.33	0.958		mg/Kg		72	56 - 120
Naphthalene	1.33	1.11		mg/Kg		84	63 - 110
2,4-Dichlorophenol	1.33	1.02		mg/Kg		76	58 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A

Matrix: Solid

Analysis Batch: 432418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.02		mg/Kg		76	30 - 150
2,4,6-Trichlorophenol	1.33	1.10		mg/Kg		82	57 - 120
2,4,5-Trichlorophenol	1.33	1.08		mg/Kg		81	50 - 120
Hexachlorocyclopentadiene	1.33	0.927		mg/Kg		70	10 - 106
2-Methylnaphthalene	1.33	1.15		mg/Kg		86	62 - 110
2-Nitroaniline	1.33	1.88	*	mg/Kg		141	57 - 124
2-Chloronaphthalene	1.33	1.06		mg/Kg		80	64 - 110
4-Chloro-3-methylphenol	1.33	1.31		mg/Kg		98	61 - 114
2,6-Dinitrotoluene	1.33	1.28		mg/Kg		96	67 - 120
2-Nitrophenol	1.33	1.29		mg/Kg		97	60 - 120
3-Nitroaniline	1.33	0.967		mg/Kg		73	40 - 122
Dimethyl phthalate	1.33	1.37		mg/Kg		103	64 - 110
2,4-Dinitrophenol	2.67	1.03		mg/Kg		39	10 - 100
Acenaphthylene	1.33	1.10		mg/Kg		83	60 - 110
2,4-Dinitrotoluene	1.33	1.23		mg/Kg		93	62 - 117
Acenaphthene	1.33	1.03		mg/Kg		77	58 - 110
Dibenzofuran	1.33	1.04		mg/Kg		78	64 - 110
4-Nitrophenol	2.67	2.80		mg/Kg		105	30 - 122
Fluorene	1.33	1.05		mg/Kg		79	62 - 120
4-Nitroaniline	1.33	1.32		mg/Kg		99	60 - 160
4-Bromophenyl phenyl ether	1.33	1.21		mg/Kg		91	63 - 110
Hexachlorobenzene	1.33	1.34		mg/Kg		101	55 - 117
Diethyl phthalate	1.33	1.09		mg/Kg		82	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.09		mg/Kg		82	63 - 110
Pentachlorophenol	2.67	2.58		mg/Kg		97	13 - 112
N-Nitrosodiphenylamine	1.33	1.25		mg/Kg		94	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.65		mg/Kg		62	10 - 110
Phenanthrene	1.33	1.14		mg/Kg		85	62 - 120
Anthracene	1.33	1.15		mg/Kg		86	63 - 110
Carbazole	1.33	1.44		mg/Kg		108	59 - 158
Di-n-butyl phthalate	1.33	1.31		mg/Kg		98	65 - 120
Fluoranthene	1.33	1.31		mg/Kg		98	62 - 120
Pyrene	1.33	1.22		mg/Kg		92	63 - 120
Butyl benzyl phthalate	1.33	1.37		mg/Kg		103	61 - 116
Benzo[a]anthracene	1.33	1.33		mg/Kg		100	63 - 110
Chrysene	1.33	1.50		mg/Kg		113	63 - 120
3,3'-Dichlorobenzidine	1.33	1.22		mg/Kg		91	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.29		mg/Kg		97	63 - 118
Di-n-octyl phthalate	1.33	1.45		mg/Kg		109	63 - 119
Benzo[b]fluoranthene	1.33	1.24		mg/Kg		93	62 - 120
Benzo[k]fluoranthene	1.33	1.29		mg/Kg		97	65 - 120
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.33		mg/Kg		100	57 - 127
Dibenz(a,h)anthracene	1.33	1.28		mg/Kg		96	64 - 119
Benzo[g,h,i]perylene	1.33	1.36		mg/Kg		102	64 - 120
3 & 4 Methylphenol	1.33	1.34		mg/Kg		101	57 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432247

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	123		46 - 133
Phenol-d5	126	X	46 - 125
Nitrobenzene-d5	128	X	41 - 120
2-Fluorobiphenyl	93		44 - 121
2,4,6-Tribromophenol	104		25 - 139
Terphenyl-d14	116		35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431784/1-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431784

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Barium	<1.0		1.0	0.11	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Boron	0.586	J	5.0	0.47	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cadmium	0.0853	J	0.20	0.036	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Calcium	6.57	J	20	3.4	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Copper	<1.0		1.0	0.28	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Iron	<20		20	10	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Lead	<0.50		0.50	0.23	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Magnesium	<10		10	5.0	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Manganese	<1.0		1.0	0.15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Potassium	<50		50	18	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Selenium	<1.0		1.0	0.59	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Silver	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Sodium	<100		100	15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Zinc	<2.0		2.0	0.88	mg/Kg		05/11/18 07:44	05/11/18 21:37	1

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Antimony	50.0	47.4		mg/Kg		95	80 - 120
Arsenic	10.0	9.55		mg/Kg		96	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Beryllium	5.00	4.69		mg/Kg		94	80 - 120
Boron	100	86.6		mg/Kg		87	80 - 120
Cadmium	5.00	4.67		mg/Kg		93	80 - 120
Calcium	1000	931		mg/Kg		93	80 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	46.9		mg/Kg		94	80 - 120
Copper	25.0	25.1		mg/Kg		100	80 - 120
Iron	100	98.6		mg/Kg		99	80 - 120
Lead	10.0	9.11		mg/Kg		91	80 - 120
Magnesium	1000	931		mg/Kg		93	80 - 120
Manganese	50.0	46.8		mg/Kg		94	80 - 120
Nickel	50.0	46.5		mg/Kg		93	80 - 120
Potassium	1000	1070		mg/Kg		107	80 - 120
Selenium	10.0	8.64		mg/Kg		86	80 - 120
Silver	5.00	4.57		mg/Kg		91	80 - 120
Sodium	1000	1060		mg/Kg		106	80 - 120
Thallium	10.0	8.51		mg/Kg		85	80 - 120
Vanadium	50.0	47.8		mg/Kg		96	80 - 120
Zinc	50.0	45.0		mg/Kg		90	80 - 120

Lab Sample ID: LCS 500-431974/2-A
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.500	0.496		mg/L		99	80 - 120

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.492	J	mg/L		98	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	1.00	0.888		mg/L		89	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Chromium	0.200	0.190		mg/L		95	80 - 120
Cobalt	0.500	0.479		mg/L		96	80 - 120
Iron	1.00	1.07		mg/L		107	80 - 120
Lead	0.100	0.0885		mg/L		89	80 - 120
Manganese	0.500	0.483		mg/L		97	80 - 120
Nickel	0.500	0.486		mg/L		97	80 - 120
Selenium	0.100	0.0813		mg/L		81	80 - 120
Silver	0.0500	0.0471		mg/L		94	80 - 120
Zinc	0.500	0.485	J	mg/L		97	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:28	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:28	1
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1

Lab Sample ID: LB 500-431855/1-B
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 431974

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 04:53	1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.512	^	mg/L		102	80 - 120
Thallium	0.100	0.101	^	mg/L		101	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:41	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:41	1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-432198/12-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:20	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 7470A - TCLP Mercury (Continued)

Lab Sample ID: LCS 500-432198/13-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432198
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00213		mg/L		107	80 - 120

Lab Sample ID: LB 500-431857/1-C
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432198

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:25	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-432633/12-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/16/18 16:45	05/17/18 10:13	1

Lab Sample ID: LCS 500-432633/13-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432633
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.152		mg/Kg		91	80 - 120

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 05:54	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:28	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:33	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:07	EEN	TAL CHI
Total/NA	Analysis	9045D		1	433205	(Start) 05/18/18 15:34 (End) 05/18/18 15:37	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 20:44	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 17:03	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:39	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 22:52	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:50	PFK	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:33	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:36	FXG	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:09	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
					(Start)	05/14/18 16:46		
					(End)	05/14/18 16:50		
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 21:11	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 17:31	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:43	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:04	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:53	PFK	TAL CHI

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:02	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:45	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:39	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:12	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
					(Start)	05/14/18 16:50		
					(End)	05/14/18 16:53		
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 21:39	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 18:00	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:47	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:08	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:56	PFK	TAL CHI

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:06	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:49	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:43	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:14	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288	(Start) 05/14/18 16:53 (End) 05/14/18 16:57	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 22:06	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 18:29	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:51	PJ1	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432518	05/16/18 02:55	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:12	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:58	PFK	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Report To (optional) _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional) _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145111
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009841.004102									
Project Name		Lab Project #		# of Containers		VOC		SVOC		Total/ TCLP Metals	
176-001-W041				Matrix						pH	
Project Location/State		Lab PM								Percent Solids	
Marengo, IL		D. Wright									
Sampler		Sampling									
MF, JH		Date		Time							
Lab ID	MS/MSD	Sample ID									
12		2956V-04-B03(0-4)	5/8/18	1345	5	5	X	X	X	X	X
13		2956V-04-B03(0-4)	5/8/18	1345	5	5	X	X	X	X	X
14		2956V-04-B02(0-4)	5/8/18	1416	5	5	X	X	X	X	X
15		2956V-04-B01(0-4)	5/8/18	1430	5	5	X	X	X	X	X

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date: _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>P. Wright</u> Company: <u>E+E</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Lab Courier: <input checked="" type="checkbox"/>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1745</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>05/08/18</u> Time: <u>1745</u>	Shipped: <input type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: <input type="checkbox"/>

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-3

Login Number: 145111

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8215 S. Grant Highway (ISGS #3696-27)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20961 Longitude: -88.55679
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2956V-04-B01 and 2956V-04-B02 was sampled within the construction zone adjacent to ISGS 3696-27 (#2956V-4, Residence). Refer to PSI Report for ISGS 3696-27 (#2956V-4, Residence) including Table 4-4, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145111-3.

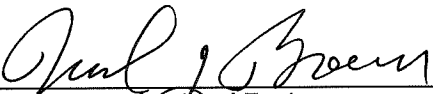
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

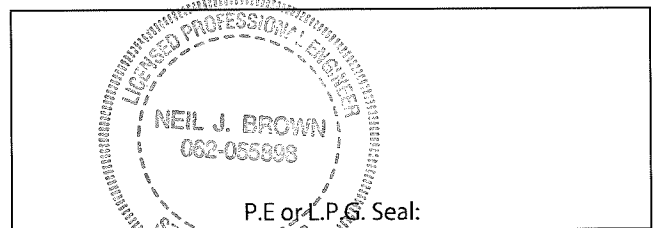
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-27 (Residence)		Comparison Criteria					
	2956V-04-B01	2956V-04-B02	MACs			TACO		
SAMPLE	2956V-04-B01 (0-4)	2956V-04-B02 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-4	0-4						
pH	8.5	8						
PID	--	--						
VOCs (mg/kg)								
Acetone	ND U	0.016 J	25	--	--	70,000	100,000	--
SVOCs (None Detected)								
Inorganics (mg/kg)								
Arsenic	5.3	2.9	11.3	13	--	13	61	--
Barium	30	70	1,500	--	--	5,500	14,000	--
Beryllium	0.42	0.7	22	--	--	160	410	--
Boron	9.7	11	40	--	--	16,000	41,000	--
Calcium	100,000	19,000	--	--	--	--	--	--
Chromium	11	17	21	--	--	230	690	--
Cobalt	4.6	8	20	--	--	4,700	12,000	--
Copper	12	16	2,900	--	--	2,900	8,200	--
Iron	9,400	14,000	15,000	15,900	--	--	--	--
Lead	5.2	6.9	107	--	--	400	700	--
Magnesium	42,000	14,000	325,000	--	--	--	730,000	--
Manganese	190	260	630	636	--	1,600	4,100	--
Mercury	0.014 J	0.036	0.89	--	--	10	0.1	--
Nickel	11	23	100	--	--	1,600	4,100	--
Potassium	1,700	1,900	--	--	--	--	--	--
Selenium	ND U	0.37 J	1.3	--	--	390	1,000	--
Silver	0.12 J	0.33	4.4	--	--	390	1,000	--
Sodium	290	310	--	--	--	--	--	--
Thallium	ND U	0.39 J	2.6	--	--	6.3	160	--
Vanadium	17	25	550	--	--	550	1,400	--
Zinc	20	32	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.29 J	0.56	--	--	--	--	--	2
Boron	ND U	0.059 J	--	--	--	--	--	2
Manganese	0.44 L	0.44 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)								
Manganese	0.32 L	0.57 L	--	--	--	--	--	0.15

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-145111-3
Client Project/Site: IDOT - 176-001-WO041
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
7/19/2019 2:33:08 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com
Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Job ID: 500-145111-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-145111-3

Revised Report

Revision added to correct the client id prefix from 2273V to 2956V for samples 12 thru 18 per chains of custody.

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.020	0.0085	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.9		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	70		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	11	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	19000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.0		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	6.9		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	260		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.33		0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.57	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	32		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.3		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	30		0.52	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.42		0.21	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	9.7	B	2.6	0.24	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4) (Continued)

Lab Sample ID: 500-145111-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.11	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000	B	100	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	11		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.6		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	9400		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	5.2		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.52	0.075	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Silver	0.12	J	0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Sodium	290		52	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	20		1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-145111-14	2956V-04-B02 (0-4)	Solid	05/08/18 14:16	05/08/18 17:45	
500-145111-15	2956V-04-B01 (0-4)	Solid	05/08/18 14:30	05/08/18 17:45	

- 1
- 2
- 3
- 4

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.020	0.0085	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloroethane	<0.0049	*	0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Styrene	<0.0020	*	0.0020	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Toluene	<0.0020		0.0020	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		75 - 131	05/09/18 09:07	05/16/18 21:39	1
Dibromofluoromethane	109		75 - 126	05/09/18 09:07	05/16/18 21:39	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	05/09/18 09:07	05/16/18 21:39	1
Toluene-d8 (Surr)	103		75 - 124	05/09/18 09:07	05/16/18 21:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
N-Nitrosodi-n-propylamine	<0.080	*	0.080	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Isophorone	<0.20	*	0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Nitroaniline	<0.20	*	0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzof[anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	121		46 - 133	05/15/18 07:06	05/16/18 18:00	1
Phenol-d5	111		46 - 125	05/15/18 07:06	05/16/18 18:00	1
Nitrobenzene-d5	92		41 - 120	05/15/18 07:06	05/16/18 18:00	1
2-Fluorobiphenyl	106		44 - 121	05/15/18 07:06	05/16/18 18:00	1
2,4,6-Tribromophenol	99		25 - 139	05/15/18 07:06	05/16/18 18:00	1
Terphenyl-d14	136		35 - 160	05/15/18 07:06	05/16/18 18:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Arsenic	2.9		0.57	0.20	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Barium	70		0.57	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Beryllium	0.70		0.23	0.053	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Boron	11 B		2.9	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Cadmium	0.14 B		0.11	0.021	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Calcium	19000 B		11	1.9	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Chromium	17		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Cobalt	8.0		0.29	0.075	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Copper	16		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Iron	14000		11	6.0	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Lead	6.9		0.29	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Magnesium	14000		5.7	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Manganese	260		0.57	0.083	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Nickel	23		0.57	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Potassium	1900		29	10	mg/Kg	☼	05/11/18 07:44	05/16/18 02:47	1
Selenium	0.37 J		0.57	0.34	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Silver	0.33		0.29	0.074	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Sodium	310		57	8.5	mg/Kg	☼	05/11/18 07:44	05/16/18 02:47	1
Thallium	0.39 J		0.57	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Vanadium	25		0.29	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1
Zinc	32		1.1	0.50	mg/Kg	☼	05/11/18 07:44	05/11/18 23:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.56		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:45	1
Boron	0.059 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:45	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:45	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:45	1
Manganese	0.44		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:45	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:45	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:45	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.57		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:02	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:39	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU			05/14/18 16:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Chloroethane	<0.0044 *		0.0044	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Styrene	<0.0018 *		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 22:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/09/18 09:07	05/16/18 22:06	1
Dibromofluoromethane	107		75 - 126	05/09/18 09:07	05/16/18 22:06	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	05/09/18 09:07	05/16/18 22:06	1
Toluene-d8 (Surr)	100		75 - 124	05/09/18 09:07	05/16/18 22:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Bis(2-chloroethyl)ether	<0.18 *		0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
N-Nitrosodi-n-propylamine	<0.074	*	0.074	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Isophorone	<0.18	*	0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Methylnaphthalene	<0.074		0.074	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Nitroaniline	<0.18	*	0.18	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Pyrene	<0.036		0.036	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Benzof[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1

Euofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		46 - 133				05/15/18 07:06	05/16/18 18:29	1
Phenol-d5	115		46 - 125				05/15/18 07:06	05/16/18 18:29	1
Nitrobenzene-d5	99		41 - 120				05/15/18 07:06	05/16/18 18:29	1
2-Fluorobiphenyl	114		44 - 121				05/15/18 07:06	05/16/18 18:29	1
2,4,6-Tribromophenol	99		25 - 139				05/15/18 07:06	05/16/18 18:29	1
Terphenyl-d14	139		35 - 160				05/15/18 07:06	05/16/18 18:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Arsenic	5.3		0.52	0.18	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Barium	30		0.52	0.059	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Beryllium	0.42		0.21	0.048	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Boron	9.7 B		2.6	0.24	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Cadmium	0.11 B		0.10	0.019	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Calcium	100000 B		100	18	mg/Kg	☼	05/11/18 07:44	05/16/18 02:55	10
Chromium	11		0.52	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Cobalt	4.6		0.26	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Copper	12		0.52	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Iron	9400		10	5.4	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Lead	5.2		0.26	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Magnesium	42000		5.2	2.6	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Manganese	190		0.52	0.075	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Nickel	11		0.52	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Potassium	1700		26	9.1	mg/Kg	☼	05/11/18 07:44	05/16/18 02:51	1
Selenium	<0.52		0.52	0.30	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Silver	0.12 J		0.26	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Sodium	290		52	7.6	mg/Kg	☼	05/11/18 07:44	05/16/18 02:51	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Vanadium	17		0.26	0.061	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1
Zinc	20		1.0	0.45	mg/Kg	☼	05/11/18 07:44	05/11/18 23:12	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:49	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:49	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:49	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:49	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:49	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:49	1
Manganese	0.44		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:49	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:49	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:49	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:49	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:49	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.32		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 06:06	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:43	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:43	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/16/18 00:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/14/18 16:53	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

GC/MS VOA

Prep Batch: 431605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	5035	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	5035	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	5035	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	5035	

Analysis Batch: 432550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	8260B	431605
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	8260B	431605
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	8260B	431605
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	8260B	431605
MB 500-432550/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432550/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432550/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 432247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	3541	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	3541	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	3541	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	3541	
MB 500-432247/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 432418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-432247/1-A	Method Blank	Total/NA	Solid	8270D	432247
LCS 500-432247/2-A	Lab Control Sample	Total/NA	Solid	8270D	432247

Analysis Batch: 432511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	8270D	432247
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	8270D	432247
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	8270D	432247
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	8270D	432247

Metals

Prep Batch: 431784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	3050B	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	3050B	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	3050B	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	3050B	
MB 500-431784/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Leach Batch: 431855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	1312	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals (Continued)

Leach Batch: 431855 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	1312	
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	1312	
LB 500-431855/1-B	Method Blank	SPLP East	Solid	1312	

Leach Batch: 431857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	1311	
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	1311	
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	1311	
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	1311	
LB 500-431857/1-B	Method Blank	TCLP	Solid	1311	
LB 500-431857/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 431974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	3010A	431855
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	3010A	431855
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	3010A	431855
LB 500-431855/1-B	Method Blank	SPLP East	Solid	3010A	431855
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 431975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	3010A	431857
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	3010A	431857
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	3010A	431857
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	3010A	431857
LB 500-431857/1-B	Method Blank	TCLP	Solid	3010A	431857
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 432053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	6010B	431784
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
MB 500-431784/1-A	Method Blank	Total/NA	Solid	6010B	431784
LCS 500-431784/2-A	Lab Control Sample	Total/NA	Solid	6010B	431784

Prep Batch: 432198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	7470A	431857
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	7470A	431857
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	7470A	431857
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	7470A	431857
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	431857
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals

Analysis Batch: 432243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	6010B	431975
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	6010B	431975
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	6010B	431975
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	6010B	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6010B	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6010B	431975

Analysis Batch: 432289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	6020A	431975
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	6020A	431975
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	6020A	431975
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	6020A	431975
LB 500-431857/1-B	Method Blank	TCLP	Solid	6020A	431975
LCS 500-431975/2-A	Lab Control Sample	Total/NA	Solid	6020A	431975

Analysis Batch: 432510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	TCLP	Solid	7470A	432198
500-145111-13	2956V-04-B03 (0-4)D	TCLP	Solid	7470A	432198
500-145111-14	2956V-04-B02 (0-4)	TCLP	Solid	7470A	432198
500-145111-15	2956V-04-B01 (0-4)	TCLP	Solid	7470A	432198
LB 500-431857/1-C	Method Blank	TCLP	Solid	7470A	432198
MB 500-432198/12-A	Method Blank	Total/NA	Solid	7470A	432198
LCS 500-432198/13-A	Lab Control Sample	Total/NA	Solid	7470A	432198

Analysis Batch: 432518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	SPLP East	Solid	6010B	431974
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	6010B	431784
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	6010B	431784
500-145111-14	2956V-04-B02 (0-4)	SPLP East	Solid	6010B	431974
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	SPLP East	Solid	6010B	431974
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	6010B	431784
LB 500-431855/1-B	Method Blank	SPLP East	Solid	6010B	431974
LCS 500-431974/2-A	Lab Control Sample	Total/NA	Solid	6010B	431974

Prep Batch: 432633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	7471B	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	7471B	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	7471B	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	7471B	
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 432812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	7471B	432633

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QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Metals (Continued)

Analysis Batch: 432812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	7471B	432633
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	7471B	432633
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	7471B	432633
MB 500-432633/12-A	Method Blank	Total/NA	Solid	7471B	432633
LCS 500-432633/13-A	Lab Control Sample	Total/NA	Solid	7471B	432633

General Chemistry

Analysis Batch: 431772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	Moisture	
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	Moisture	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	Moisture	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	Moisture	

Analysis Batch: 432288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-13	2956V-04-B03 (0-4)D	Total/NA	Solid	9045D	
500-145111-14	2956V-04-B02 (0-4)	Total/NA	Solid	9045D	
500-145111-15	2956V-04-B01 (0-4)	Total/NA	Solid	9045D	

Analysis Batch: 433205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145111-12	2956V-04-B03 (0-4)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-145111-12	2956V-04-B03 (0-4)	102	108	107	116
500-145111-13	2956V-04-B03 (0-4)D	102	120	117	123
500-145111-14	2956V-04-B02 (0-4)	110	109	106	103
500-145111-15	2956V-04-B01 (0-4)	99	107	108	100
LCS 500-432550/3	Lab Control Sample	103	106	110	97
LCSD 500-432550/4	Lab Control Sample Dup	102	107	108	110
MB 500-432550/6	Method Blank	104	128 X	131	109

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(46-133)	(46-125)	(41-120)	(44-121)	(25-139)	(35-160)
500-145111-12	2956V-04-B03 (0-4)	123	116	94	104	98	141
500-145111-13	2956V-04-B03 (0-4)D	117	108	94	105	93	138
500-145111-14	2956V-04-B02 (0-4)	121	111	92	106	99	136
500-145111-15	2956V-04-B01 (0-4)	127	115	99	114	99	139
LCS 500-432247/2-A	Lab Control Sample	123	126 X	128 X	93	104	116
MB 500-432247/1-A	Method Blank	119	121	120	91	102	128

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432550/6
Matrix: Solid
Analysis Batch: 432550

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			05/16/18 15:17	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/16/18 15:17	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/16/18 15:17	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/16/18 15:17	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/16/18 15:17	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/16/18 15:17	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/16/18 15:17	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/16/18 15:17	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/16/18 15:17	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/16/18 15:17	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/16/18 15:17	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/16/18 15:17	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/16/18 15:17	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/16/18 15:17	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/16/18 15:17	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/16/18 15:17	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/16/18 15:17	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/16/18 15:17	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/16/18 15:17	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/16/18 15:17	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/16/18 15:17	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/16/18 15:17	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/16/18 15:17	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/16/18 15:17	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/16/18 15:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	104		75 - 131		05/16/18 15:17	1
Dibromofluoromethane	128	X	75 - 126		05/16/18 15:17	1
1,2-Dichloroethane-d4 (Surr)	131		70 - 134		05/16/18 15:17	1
Toluene-d8 (Surr)	109		75 - 124		05/16/18 15:17	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432550/3
Matrix: Solid
Analysis Batch: 432550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0633		mg/Kg		127	40 - 150
Benzene	0.0500	0.0540		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0456		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0556		mg/Kg		111	68 - 136
Bromomethane	0.0500	0.0403		mg/Kg		81	70 - 130
2-Butanone (MEK)	0.0500	0.0558		mg/Kg		112	47 - 138
Carbon disulfide	0.0500	0.0554		mg/Kg		111	70 - 129
Carbon tetrachloride	0.0500	0.0566		mg/Kg		113	75 - 125
Chlorobenzene	0.0500	0.0512		mg/Kg		102	50 - 150
Chloroethane	0.0500	0.0354	*	mg/Kg		71	75 - 125
Chloroform	0.0500	0.0555		mg/Kg		111	57 - 135
Chloromethane	0.0500	0.0535		mg/Kg		107	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0526		mg/Kg		105	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0438		mg/Kg		88	70 - 125
Dibromochloromethane	0.0500	0.0558		mg/Kg		112	69 - 125
1,1-Dichloroethane	0.0500	0.0539		mg/Kg		108	70 - 125
1,2-Dichloroethane	0.0500	0.0584		mg/Kg		117	70 - 130
1,1-Dichloroethene	0.0500	0.0518		mg/Kg		104	70 - 120
1,2-Dichloropropane	0.0500	0.0461		mg/Kg		92	70 - 125
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136
2-Hexanone	0.0500	0.0528		mg/Kg		106	48 - 146
Methylene Chloride	0.0500	0.0511		mg/Kg		102	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0412		mg/Kg		82	50 - 148
Methyl tert-butyl ether	0.0500	0.0544		mg/Kg		109	50 - 140
Styrene	0.0500	0.0541		mg/Kg		108	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0527		mg/Kg		105	70 - 122
Tetrachloroethene	0.0500	0.0470		mg/Kg		94	70 - 124
Toluene	0.0500	0.0472		mg/Kg		94	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0481		mg/Kg		96	70 - 125
1,1,1-Trichloroethane	0.0500	0.0577		mg/Kg		115	70 - 128
1,1,2-Trichloroethane	0.0500	0.0479		mg/Kg		96	70 - 125
Trichloroethene	0.0500	0.0453		mg/Kg		91	70 - 125
Vinyl acetate	0.0500	0.0439		mg/Kg		88	40 - 153
Vinyl chloride	0.0500	0.0529		mg/Kg		106	70 - 125
Xylenes, Total	0.100	0.106		mg/Kg		106	53 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		75 - 131
Dibromofluoromethane	106		75 - 126
1,2-Dichloroethane-d4 (Surr)	110		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432550/4

Matrix: Solid

Analysis Batch: 432550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0510		mg/Kg		102	40 - 150	22	30
Benzene	0.0500	0.0554		mg/Kg		111	70 - 125	3	30
Bromodichloromethane	0.0500	0.0607		mg/Kg		121	67 - 129	29	30
Bromoform	0.0500	0.0653		mg/Kg		131	68 - 136	16	30
Bromomethane	0.0500	0.0429		mg/Kg		86	70 - 130	6	30
2-Butanone (MEK)	0.0500	0.0491		mg/Kg		98	47 - 138	13	30
Carbon disulfide	0.0500	0.0566		mg/Kg		113	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0577		mg/Kg		115	75 - 125	2	30
Chlorobenzene	0.0500	0.0539		mg/Kg		108	50 - 150	5	30
Chloroethane	0.0500	0.0453		mg/Kg		91	75 - 125	25	30
Chloroform	0.0500	0.0578		mg/Kg		116	57 - 135	4	30
Chloromethane	0.0500	0.0590		mg/Kg		118	70 - 125	10	30
cis-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0578		mg/Kg		116	70 - 125	28	30
Dibromochloromethane	0.0500	0.0574		mg/Kg		115	69 - 125	3	30
1,1-Dichloroethane	0.0500	0.0544		mg/Kg		109	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0605		mg/Kg		121	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0547		mg/Kg		109	70 - 120	6	30
1,2-Dichloropropane	0.0500	0.0584		mg/Kg		117	70 - 125	23	30
Ethylbenzene	0.0500	0.0521		mg/Kg		104	61 - 136	0	30
2-Hexanone	0.0500	0.0439		mg/Kg		88	48 - 146	18	30
Methylene Chloride	0.0500	0.0528		mg/Kg		106	70 - 126	3	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0481		mg/Kg		96	50 - 148	15	30
Methyl tert-butyl ether	0.0500	0.0560		mg/Kg		112	50 - 140	3	30
Styrene	0.0500	0.0644 *		mg/Kg		129	70 - 125	17	30
1,1,2,2-Tetrachloroethane	0.0500	0.0541		mg/Kg		108	70 - 122	3	30
Tetrachloroethene	0.0500	0.0506		mg/Kg		101	70 - 124	7	30
Toluene	0.0500	0.0566		mg/Kg		113	70 - 125	18	30
trans-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125	3	30
trans-1,3-Dichloropropene	0.0500	0.0528		mg/Kg		106	70 - 125	9	30
1,1,1-Trichloroethane	0.0500	0.0604		mg/Kg		121	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0523		mg/Kg		105	70 - 125	9	30
Trichloroethene	0.0500	0.0531		mg/Kg		106	70 - 125	16	30
Vinyl acetate	0.0500	0.0453		mg/Kg		91	40 - 153	3	30
Vinyl chloride	0.0500	0.0574		mg/Kg		115	70 - 125	8	30
Xylenes, Total	0.100	0.116		mg/Kg		116	53 - 147	8	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	107		75 - 126
1,2-Dichloroethane-d4 (Surr)	108		70 - 134
Toluene-d8 (Surr)	110		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432247/1-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432247

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432247/1-A

Matrix: Solid

Analysis Batch: 432418

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432247

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/15/18 07:06	05/15/18 21:30	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/15/18 07:06	05/15/18 21:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	119		46 - 133	05/15/18 07:06	05/15/18 21:30	1
Phenol-d5	121		46 - 125	05/15/18 07:06	05/15/18 21:30	1
Nitrobenzene-d5	120		41 - 120	05/15/18 07:06	05/15/18 21:30	1
2-Fluorobiphenyl	91		44 - 121	05/15/18 07:06	05/15/18 21:30	1
2,4,6-Tribromophenol	102		25 - 139	05/15/18 07:06	05/15/18 21:30	1
Terphenyl-d14	128		35 - 160	05/15/18 07:06	05/15/18 21:30	1

Lab Sample ID: LCS 500-432247/2-A

Matrix: Solid

Analysis Batch: 432418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.50		mg/Kg		112	56 - 122
Bis(2-chloroethyl)ether	1.33	1.49	*	mg/Kg		112	55 - 111
1,3-Dichlorobenzene	1.33	1.04		mg/Kg		78	60 - 110
1,4-Dichlorobenzene	1.33	1.02		mg/Kg		77	61 - 110
1,2-Dichlorobenzene	1.33	1.07		mg/Kg		80	62 - 110
2-Methylphenol	1.33	1.37		mg/Kg		103	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.21		mg/Kg		90	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.60	*	mg/Kg		120	56 - 118
Hexachloroethane	1.33	1.33		mg/Kg		99	61 - 110
2-Chlorophenol	1.33	1.27		mg/Kg		95	64 - 110
Nitrobenzene	1.33	1.41		mg/Kg		106	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.37		mg/Kg		103	60 - 112
1,2,4-Trichlorobenzene	1.33	0.953		mg/Kg		71	62 - 110
Isophorone	1.33	1.71	*	mg/Kg		128	55 - 110
2,4-Dimethylphenol	1.33	1.28		mg/Kg		96	60 - 110
Hexachlorobutadiene	1.33	0.958		mg/Kg		72	56 - 120
Naphthalene	1.33	1.11		mg/Kg		84	63 - 110
2,4-Dichlorophenol	1.33	1.02		mg/Kg		76	58 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A

Matrix: Solid

Analysis Batch: 432418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.02		mg/Kg		76	30 - 150
2,4,6-Trichlorophenol	1.33	1.10		mg/Kg		82	57 - 120
2,4,5-Trichlorophenol	1.33	1.08		mg/Kg		81	50 - 120
Hexachlorocyclopentadiene	1.33	0.927		mg/Kg		70	10 - 106
2-Methylnaphthalene	1.33	1.15		mg/Kg		86	62 - 110
2-Nitroaniline	1.33	1.88	*	mg/Kg		141	57 - 124
2-Chloronaphthalene	1.33	1.06		mg/Kg		80	64 - 110
4-Chloro-3-methylphenol	1.33	1.31		mg/Kg		98	61 - 114
2,6-Dinitrotoluene	1.33	1.28		mg/Kg		96	67 - 120
2-Nitrophenol	1.33	1.29		mg/Kg		97	60 - 120
3-Nitroaniline	1.33	0.967		mg/Kg		73	40 - 122
Dimethyl phthalate	1.33	1.37		mg/Kg		103	64 - 110
2,4-Dinitrophenol	2.67	1.03		mg/Kg		39	10 - 100
Acenaphthylene	1.33	1.10		mg/Kg		83	60 - 110
2,4-Dinitrotoluene	1.33	1.23		mg/Kg		93	62 - 117
Acenaphthene	1.33	1.03		mg/Kg		77	58 - 110
Dibenzofuran	1.33	1.04		mg/Kg		78	64 - 110
4-Nitrophenol	2.67	2.80		mg/Kg		105	30 - 122
Fluorene	1.33	1.05		mg/Kg		79	62 - 120
4-Nitroaniline	1.33	1.32		mg/Kg		99	60 - 160
4-Bromophenyl phenyl ether	1.33	1.21		mg/Kg		91	63 - 110
Hexachlorobenzene	1.33	1.34		mg/Kg		101	55 - 117
Diethyl phthalate	1.33	1.09		mg/Kg		82	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.09		mg/Kg		82	63 - 110
Pentachlorophenol	2.67	2.58		mg/Kg		97	13 - 112
N-Nitrosodiphenylamine	1.33	1.25		mg/Kg		94	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.65		mg/Kg		62	10 - 110
Phenanthrene	1.33	1.14		mg/Kg		85	62 - 120
Anthracene	1.33	1.15		mg/Kg		86	63 - 110
Carbazole	1.33	1.44		mg/Kg		108	59 - 158
Di-n-butyl phthalate	1.33	1.31		mg/Kg		98	65 - 120
Fluoranthene	1.33	1.31		mg/Kg		98	62 - 120
Pyrene	1.33	1.22		mg/Kg		92	63 - 120
Butyl benzyl phthalate	1.33	1.37		mg/Kg		103	61 - 116
Benzo[a]anthracene	1.33	1.33		mg/Kg		100	63 - 110
Chrysene	1.33	1.50		mg/Kg		113	63 - 120
3,3'-Dichlorobenzidine	1.33	1.22		mg/Kg		91	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.29		mg/Kg		97	63 - 118
Di-n-octyl phthalate	1.33	1.45		mg/Kg		109	63 - 119
Benzo[b]fluoranthene	1.33	1.24		mg/Kg		93	62 - 120
Benzo[k]fluoranthene	1.33	1.29		mg/Kg		97	65 - 120
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.33		mg/Kg		100	57 - 127
Dibenz(a,h)anthracene	1.33	1.28		mg/Kg		96	64 - 119
Benzo[g,h,i]perylene	1.33	1.36		mg/Kg		102	64 - 120
3 & 4 Methylphenol	1.33	1.34		mg/Kg		101	57 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432247/2-A
Matrix: Solid
Analysis Batch: 432418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432247

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	123		46 - 133
Phenol-d5	126	X	46 - 125
Nitrobenzene-d5	128	X	41 - 120
2-Fluorobiphenyl	93		44 - 121
2,4,6-Tribromophenol	104		25 - 139
Terphenyl-d14	116		35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431784/1-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431784

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Barium	<1.0		1.0	0.11	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Boron	0.586	J	5.0	0.47	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cadmium	0.0853	J	0.20	0.036	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Calcium	6.57	J	20	3.4	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Copper	<1.0		1.0	0.28	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Iron	<20		20	10	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Lead	<0.50		0.50	0.23	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Magnesium	<10		10	5.0	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Manganese	<1.0		1.0	0.15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Potassium	<50		50	18	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Selenium	<1.0		1.0	0.59	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Silver	<0.50		0.50	0.13	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Sodium	<100		100	15	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/11/18 07:44	05/11/18 21:37	1
Zinc	<2.0		2.0	0.88	mg/Kg		05/11/18 07:44	05/11/18 21:37	1

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Antimony	50.0	47.4		mg/Kg		95	80 - 120
Arsenic	10.0	9.55		mg/Kg		96	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Beryllium	5.00	4.69		mg/Kg		94	80 - 120
Boron	100	86.6		mg/Kg		87	80 - 120
Cadmium	5.00	4.67		mg/Kg		93	80 - 120
Calcium	1000	931		mg/Kg		93	80 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-431784/2-A
Matrix: Solid
Analysis Batch: 432053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	46.9		mg/Kg		94	80 - 120
Copper	25.0	25.1		mg/Kg		100	80 - 120
Iron	100	98.6		mg/Kg		99	80 - 120
Lead	10.0	9.11		mg/Kg		91	80 - 120
Magnesium	1000	931		mg/Kg		93	80 - 120
Manganese	50.0	46.8		mg/Kg		94	80 - 120
Nickel	50.0	46.5		mg/Kg		93	80 - 120
Potassium	1000	1070		mg/Kg		107	80 - 120
Selenium	10.0	8.64		mg/Kg		86	80 - 120
Silver	5.00	4.57		mg/Kg		91	80 - 120
Sodium	1000	1060		mg/Kg		106	80 - 120
Thallium	10.0	8.51		mg/Kg		85	80 - 120
Vanadium	50.0	47.8		mg/Kg		96	80 - 120
Zinc	50.0	45.0		mg/Kg		90	80 - 120

Lab Sample ID: LCS 500-431974/2-A
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.500	0.496		mg/L		99	80 - 120

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.492	J	mg/L		98	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	1.00	0.888		mg/L		89	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Chromium	0.200	0.190		mg/L		95	80 - 120
Cobalt	0.500	0.479		mg/L		96	80 - 120
Iron	1.00	1.07		mg/L		107	80 - 120
Lead	0.100	0.0885		mg/L		89	80 - 120
Manganese	0.500	0.483		mg/L		97	80 - 120
Nickel	0.500	0.486		mg/L		97	80 - 120
Selenium	0.100	0.0813		mg/L		81	80 - 120
Silver	0.0500	0.0471		mg/L		94	80 - 120
Zinc	0.500	0.485	J	mg/L		97	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:28	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:28	1
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:28	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:28	1

Lab Sample ID: LB 500-431855/1-B
Matrix: Solid
Analysis Batch: 432518

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 431974

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 04:53	1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-431975/2-A
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.512	^	mg/L		102	80 - 120
Thallium	0.100	0.101	^	mg/L		101	80 - 120

Lab Sample ID: LB 500-431857/1-B
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431975

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:41	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:41	1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-432198/12-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:20	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Method: 7470A - TCLP Mercury (Continued)

Lab Sample ID: LCS 500-432198/13-A
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432198
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00213		mg/L		107	80 - 120

Lab Sample ID: LB 500-431857/1-C
Matrix: Solid
Analysis Batch: 432510

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432198

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:25	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-432633/12-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/16/18 16:45	05/17/18 10:13	1

Lab Sample ID: LCS 500-432633/13-A
Matrix: Solid
Analysis Batch: 432812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432633
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.152		mg/Kg		91	80 - 120

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 05:54	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:28	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:33	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:07	EEN	TAL CHI
Total/NA	Analysis	9045D		1	433205	(Start) 05/18/18 15:34 (End) 05/18/18 15:37	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)

Lab Sample ID: 500-145111-12

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 20:44	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 17:03	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:39	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 22:52	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:50	PFK	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:33	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:36	FXG	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:09	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
					(Start)	05/14/18 16:46		
					(End)	05/14/18 16:50		
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B03 (0-4)D

Lab Sample ID: 500-145111-13

Date Collected: 05/08/18 13:45

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 21:11	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 17:31	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:43	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:04	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:53	PFK	TAL CHI

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:02	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:45	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:39	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:12	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288		SMO	TAL CHI
					(Start)	05/14/18 16:50		
					(End)	05/14/18 16:53		
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B02 (0-4)

Lab Sample ID: 500-145111-14

Date Collected: 05/08/18 14:16

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 21:39	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 18:00	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:47	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:08	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:56	PFK	TAL CHI

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431855	05/11/18 13:20	JLC	TAL CHI
SPLP East	Prep	3010A			431974	05/12/18 14:16	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432518	05/16/18 06:06	PJ1	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 20:49	EEN	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	3010A			431975	05/12/18 14:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 20:43	FXG	TAL CHI
TCLP	Leach	1311			431857	05/11/18 13:20	JLC	TAL CHI
TCLP	Prep	7470A			432198	05/14/18 18:37	PFK	TAL CHI
TCLP	Analysis	7470A		1	432510	05/16/18 00:14	EEN	TAL CHI
Total/NA	Analysis	9045D		1	432288	(Start) 05/14/18 16:53 (End) 05/14/18 16:57	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431772	05/11/18 07:31	LWN	TAL CHI

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			431605	05/09/18 09:07	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432550	05/16/18 22:06	DJD	TAL CHI
Total/NA	Prep	3541			432247	05/15/18 07:06	STW	TAL CHI
Total/NA	Analysis	8270D		1	432511	05/16/18 18:29	GES	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432518	05/16/18 02:51	PJ1	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Client Sample ID: 2956V-04-B01 (0-4)

Lab Sample ID: 500-145111-15

Date Collected: 05/08/18 14:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.9

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432518	05/16/18 02:55	PJ1	TAL CHI
Total/NA	Prep	3050B			431784	05/11/18 07:44	JEF	TAL CHI
Total/NA	Analysis	6010B		1	432053	05/11/18 23:12	EEN	TAL CHI
Total/NA	Prep	7471B			432633	05/16/18 16:45	EEN	TAL CHI
Total/NA	Analysis	7471B		1	432812	05/17/18 10:58	PFK	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145111-3

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Report To (optional) _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional) _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145111
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
E+E		1009841.0041.02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
176-001-W041																			
Project Location/State		Lab PM																	
Marengo, IL		D. Wright																	
Sampler																			
MF, JH																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/ TCLP Metals	pH	Percent Solids							Comments	
			Date	Time															
12		2956V-04-B03(0-4)	5/8/18	1345	5	S	X	X	X	X	X								
13		2956V-04-B03(0-4)	5/8/18	1345	5	S	X	X	X	X	X								
14		2956V-04-B02(0-4)	5/8/18	1416	5	S	X	X	X	X	X								
15		2956V-04-B01(0-4)	5/8/18	1430	5	S	X	X	X	X	X								

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date: _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Lab Courier: <input checked="" type="checkbox"/>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1745</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>05/08/18</u> Time: <u>1745</u>	Shipped: <input type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: <input type="checkbox"/>

- Matrix Key**
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-3

Login Number: 145111

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8214 S. Grant Highway (ISGS #3696-28)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20912 Longitude: -88.55604
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2956V-05-B01 through 2956V-05-B03 and 2956V-08-B03 was sampled within the construction zone adjacent to ISGS #3696-28 (#2956V-5, Residence). Refer to PSI Report for ISGS #3696-28 (#2956V-5, Residence) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145183-2 and J145367-1.


IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

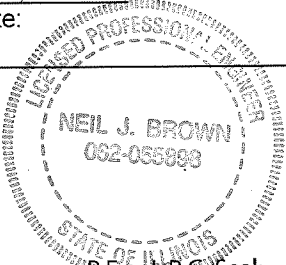
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

1/27/2020
 Date:



NEIL J. BROWN
062-055893
STATE OF ILLINOIS
P.E. or L.P.G. Seal:

Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE					Comparison Criteria						
	BORING	2956V-05-B02	2956V-05-B03		2956V-08-B03	MACs			TACO		
SAMPLE	2956V-05-B02 (0-5)	2956V-05-B03 (0-5)	2956V-05-B03 (0-5)D		2956V-08-B03 (0-2)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil		Soil						
DEPTH (feet)	0-5	0-5	0-5		0-2						
pH	7.6	8.4	8.1		8.3						
PID	--	--	--		--						
VOCs (mg/kg)											
2-Butanone (MEK)	ND U	ND U	ND U	0.0045 J	--	--	--	--	--	--	--
Acetone	0.0091 J	ND U	0.01 J	0.033	25	--	--	70,000	100,000	--	--
Methylene Chloride	ND U	ND U	0.0028 J	ND U	0.02	--	--	13	34	--	--
SVOCs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	ND U	--	--	--	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	570	--	--	4,700	120,000	--	--
Acenaphthylene	ND U	ND U	ND U	0.014 J	--	--	--	--	--	--	--
Anthracene	ND U	ND U	ND U	0.035 J	12,000	--	--	23,000	610,000	--	--
Benzo(a)anthracene	ND U	ND U	0.0049 J	0.13	0.9	1.8	1.1	1.8	170	--	--
Benzo(a)pyrene	ND U	ND U	ND U	0.12 †	0.09	2.1	1.3	2.1	17	--	--
Benzo(b)fluoranthene	ND U	ND U	ND U	0.16	0.9	2.1	1.5	2.1	170	--	--
Benzo(g,h,i)perylene	ND U	ND U	ND U	ND U	--	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	ND U	ND U	0.061	9	--	--	9	1,700	--	--
Chrysene	ND U	ND U	ND U	0.14	88	--	--	88	17,000	--	--
Dibenz(a,h)anthracene	ND U	ND U	ND U	ND U	0.09	0.42	0.2	0.42	17	--	--
Fluoranthene	ND U	ND U	0.0073 J	0.32	3,100	--	--	3,100	82,000	--	--
Fluorene	ND U	ND U	ND U	0.018 J	560	--	--	3,100	82,000	--	--
Indeno(1,2,3-cd)pyrene	ND U	ND U	ND U	0.056	0.9	1.6	0.9	1.6	170	--	--
Naphthalene	ND U	ND U	ND U	ND U	1.8	--	--	170	1.8	--	--
Phenanthrene	ND U	ND U	ND U	0.21	--	--	--	--	--	--	--
Pyrene	ND U	ND U	ND U	0.24	2,300	--	--	2,300	61,000	--	--
Inorganics (mg/kg)											
Antimony	ND U	0.21 J	0.21 J	0.28 J	5	--	--	31	82	--	--
Arsenic	2.6	2.2	2.2	3.7	11.3	13	--	13	61	--	--
Barium	42	17	20	63	1,500	--	--	5,500	14,000	--	--
Beryllium	0.52	0.25	0.26	0.51	22	--	--	160	410	--	--
Boron	5.5	4.4	3.5	4.9	40	--	--	16,000	41,000	--	--
Cadmium	ND U	ND U	ND U	0.44	5.2	--	--	78	200	--	--
Calcium	13,000	60,000	67,000	52,000	--	--	--	--	--	--	--
Chromium	15	7.2	8	13	21	--	--	230	690	--	--
Cobalt	6.6	3.7	3.8	5.7	20	--	--	4,700	12,000	--	--
Copper	12	7.7	11	15	2,900	--	--	2,900	8,200	--	--
Iron	13,000	7,300	8,600	12,000	15,000	15,900	--	--	--	--	--
Lead	6.6	3.9	6	29	107	--	--	400	700	--	--
Magnesium	8,700	31,000	29,000	24,000	325,000	--	--	--	730,000	--	--
Manganese	190	170	160	450	630	636	--	1,600	4,100	--	--
Mercury	0.022	0.0097 J	0.018	0.036	0.89	--	--	10	0.1	--	--
Nickel	17	7.9	7.9	12	100	--	--	1,600	4,100	--	--
Potassium	1,300	650	530	900	--	--	--	--	--	--	--
Silver	0.27 J	0.13 J	0.1 J	0.15 J	4.4	--	--	390	1,000	--	--
Sodium	280	160	200	660	--	--	--	--	--	--	--
Vanadium	24	16	20	24	550	--	--	550	1,400	--	--
Zinc	28	14	18	54	5,100	--	--	23,000	61,000	--	--
TCLP Metals (mg/L)											
Barium	0.35 J	0.21 J	0.31 J	0.38 J	--	--	--	--	--	--	2
Boron	0.061 J	0.062 J	0.057 J	0.062 J	--	--	--	--	--	--	2
Cadmium	0.0022 J	0.0021 J	0.0024 J	0.0031 J	--	--	--	--	--	--	0.005
Iron	ND U	ND U	ND U	0.2 J	--	--	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	--	--	--	--	--	--	0.0075
Manganese	0.51 L	0.8 L	0.73 L	0.23 L	--	--	--	--	--	--	0.15
SPLP Metals (mg/L)											
Cadmium	NA	NA	NA	NA	--	--	--	--	--	--	0.005
Lead	NA	NA	NA	NA	--	--	--	--	--	--	0.0075
Manganese	0.38 L	0.14 J	0.31 J L	0.64 L	--	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145183-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/23/2018 4:19:07 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Job ID: 500-145183-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145183-2

Receipt

The samples were received on 5/9/2018 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.8° C and 5.3° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: Surrogate recovery for the following samples was outside the upper control limit: 2956V-05-B03 (0-5) (500-145183-4), 2956V-05-B03 (0-5)D (500-145183-5) and 2956V-05-B02 (0-5) (500-145183-6). The samples did not contain any target analytes detected above the reporting limit (RL); therefore, re-extraction and re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

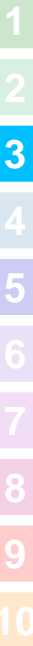
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)

Lab Sample ID: 500-145183-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.21	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.2		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	17		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.25		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.4	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	60000	B	55	9.3	mg/Kg	5	☼	6010B	Total/NA
Chromium	7.2		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	7.7		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	7300		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	3.9		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	170		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.9		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	650		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.13	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	14		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.80		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0097	J	0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-05-B03 (0-5)D

Lab Sample ID: 500-145183-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.010	J	0.016	0.0068	mg/Kg	1	☼	8260B	Total/NA
Methylene Chloride	0.0028	J	0.0039	0.0015	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.0073	J	0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0049	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.21	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.2		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.26		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	3.5	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	67000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.0		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8600		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	6.0		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	160		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)D (Continued)

Lab Sample ID: 500-145183-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	7.9		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	530		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.10	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	200		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	18		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.057	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.73		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.089	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-05-B02 (0-5)

Lab Sample ID: 500-145183-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0091	J	0.017	0.0076	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.6		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	42		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	5.5	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	13000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.6		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	6.6		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8700	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	17		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.27	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	28		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.061	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.19	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.38		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.022		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-05-B01 (0-2)

Lab Sample ID: 500-145183-7

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B01 (0-2) (Continued)

Lab Sample ID: 500-145183-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.027		0.025	0.011	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.011	J	0.046	0.0071	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.017	J	0.093	0.0085	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.027	J	0.046	0.0061	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.012	J	0.046	0.0083	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.013	J	0.046	0.0065	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.046	0.0065	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.040	J	0.046	0.0077	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.30		0.046	0.0086	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.26		0.046	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.15		0.046	0.0062	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.20		0.046	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.27		0.046	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.11		0.046	0.014	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.16		0.046	0.0090	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.065		0.046	0.012	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.020	J	0.046	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.075		0.046	0.015	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.31	J	1.4	0.27	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.6		0.69	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	58		0.69	0.078	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0	B	3.4	0.32	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.99	B	0.14	0.025	mg/Kg	1	☼	6010B	Total/NA
Calcium	38000	B	14	2.3	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.69	0.34	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.34	0.090	mg/Kg	1	☼	6010B	Total/NA
Copper	33		0.69	0.19	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		14	7.1	mg/Kg	1	☼	6010B	Total/NA
Lead	250		0.34	0.16	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000	B	6.9	3.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	180		0.69	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.69	0.20	mg/Kg	1	☼	6010B	Total/NA
Potassium	940		34	12	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.34	0.089	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		69	10	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.34	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	120		1.4	0.60	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.080	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0059		0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.036		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.63		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.23	J B	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Lead	0.20		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.082		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.069		0.022	0.0073	mg/Kg	1	☼	7471B	Total/NA
pH	7.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145183-4	2956V-05-B03 (0-5)	Solid	05/09/18 10:40	05/09/18 17:30
500-145183-5	2956V-05-B03 (0-5)D	Solid	05/09/18 10:40	05/09/18 17:30
500-145183-6	2956V-05-B02 (0-5)	Solid	05/09/18 10:50	05/09/18 17:30
500-145183-7	2956V-05-B01 (0-2)	Solid	05/09/18 11:05	05/09/18 17:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)

Lab Sample ID: 500-145183-4

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	05/09/18 18:01	05/16/18 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/09/18 18:01	05/16/18 22:39	1
Dibromofluoromethane	84		75 - 126	05/09/18 18:01	05/16/18 22:39	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	05/09/18 18:01	05/16/18 22:39	1
Toluene-d8 (Surr)	91		75 - 124	05/09/18 18:01	05/16/18 22:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)

Lab Sample ID: 500-145183-4

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)

Lab Sample ID: 500-145183-4

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/16/18 07:21	05/17/18 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	134	X	46 - 133	05/16/18 07:21	05/17/18 14:49	1
Phenol-d5	128	X	46 - 125	05/16/18 07:21	05/17/18 14:49	1
Nitrobenzene-d5	119		41 - 120	05/16/18 07:21	05/17/18 14:49	1
2-Fluorobiphenyl	134	X	44 - 121	05/16/18 07:21	05/17/18 14:49	1
2,4,6-Tribromophenol	112		25 - 139	05/16/18 07:21	05/17/18 14:49	1
Terphenyl-d14	177	X	35 - 160	05/16/18 07:21	05/17/18 14:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.21	J	1.1	0.21	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Arsenic	2.2		0.55	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Barium	17		0.55	0.062	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Beryllium	0.25		0.22	0.051	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Boron	4.4	B	2.7	0.25	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Cadmium	0.10	J B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Calcium	60000	B	55	9.3	mg/Kg	☼	05/11/18 17:01	05/16/18 04:12	5
Chromium	7.2		0.55	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Cobalt	3.7		0.27	0.072	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Copper	7.7		0.55	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Iron	7300		11	5.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Lead	3.9		0.27	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Magnesium	31000	B	5.5	2.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Manganese	170		0.55	0.079	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Nickel	7.9		0.55	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Potassium	650		27	9.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Silver	0.13	J	0.27	0.071	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Sodium	160		55	8.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Vanadium	16		0.27	0.065	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1
Zinc	14		1.1	0.48	mg/Kg	☼	05/11/18 17:01	05/14/18 18:03	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.21	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:19	1
Boron	0.062	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)

Lab Sample ID: 500-145183-4

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Manganese	0.80		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:19	1
Zinc	0.21	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:19	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:27	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 11:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 11:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0097	J	0.017	0.0055	mg/Kg	☼	05/17/18 10:56	05/18/18 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.20	0.20	SU	-		05/15/18 16:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)D

Lab Sample ID: 500-145183-5

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 88.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.010	J	0.016	0.0068	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00043	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,1-Dichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Ethylbenzene	<0.0016		0.0016	0.00074	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Methylene Chloride	0.0028	J	0.0039	0.0015	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/09/18 18:01	05/16/18 23:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/09/18 18:01	05/16/18 23:06	1
Dibromofluoromethane	85		75 - 126	05/09/18 18:01	05/16/18 23:06	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/09/18 18:01	05/16/18 23:06	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/16/18 23:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)D

Lab Sample ID: 500-145183-5

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 88.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Fluoranthene	0.0073	J	0.036	0.0066	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Benzo[a]anthracene	0.0049	J	0.036	0.0048	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)D

Lab Sample ID: 500-145183-5

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 88.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0098	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Benzo[b]fluoranthene	<0.036		0.036	0.0077	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Benzo[a]pyrene	<0.036		0.036	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	140	X	46 - 133	05/16/18 07:21	05/17/18 15:18	1
Phenol-d5	136	X	46 - 125	05/16/18 07:21	05/17/18 15:18	1
Nitrobenzene-d5	126	X	41 - 120	05/16/18 07:21	05/17/18 15:18	1
2-Fluorobiphenyl	139	X	44 - 121	05/16/18 07:21	05/17/18 15:18	1
2,4,6-Tribromophenol	124		25 - 139	05/16/18 07:21	05/17/18 15:18	1
Terphenyl-d14	178	X	35 - 160	05/16/18 07:21	05/17/18 15:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.21	J	1.1	0.21	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Arsenic	2.2		0.55	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Barium	20		0.55	0.062	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Beryllium	0.26		0.22	0.051	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Boron	3.5	B	2.7	0.25	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Cadmium	0.12	B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Calcium	67000	B	110	19	mg/Kg	☼	05/11/18 17:01	05/16/18 04:16	10
Chromium	8.0		0.55	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Cobalt	3.8		0.27	0.072	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Copper	11		0.55	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Iron	8600		11	5.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Lead	6.0		0.27	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Magnesium	29000	B	5.5	2.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Manganese	160		0.55	0.079	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Nickel	7.9		0.55	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Potassium	530		27	9.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Silver	0.10	J	0.27	0.070	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Sodium	200		55	8.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Vanadium	20		0.27	0.064	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1
Zinc	18		1.1	0.48	mg/Kg	☼	05/11/18 17:01	05/14/18 18:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:23	1
Boron	0.057	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B03 (0-5)D

Lab Sample ID: 500-145183-5

Date Collected: 05/09/18 10:40

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 88.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0024	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Manganese	0.73		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:23	1
Zinc	0.089	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:23	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.31		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:31	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 11:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 11:49	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.017	0.0058	mg/Kg	☼	05/17/18 10:56	05/18/18 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.20	0.20	SU	-		05/15/18 16:31	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B02 (0-5)

Lab Sample ID: 500-145183-6

Date Collected: 05/09/18 10:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0091	J	0.017	0.0076	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Benzene	<0.0017		0.0017	0.00045	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Bromodichloromethane	<0.0017		0.0017	0.00036	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Carbon tetrachloride	<0.0017		0.0017	0.00051	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Chlorobenzene	<0.0017		0.0017	0.00065	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Chloroform	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Ethylbenzene	<0.0017		0.0017	0.00084	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Tetrachloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/09/18 18:01	05/16/18 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/09/18 18:01	05/16/18 23:33	1
Dibromofluoromethane	86		75 - 126	05/09/18 18:01	05/16/18 23:33	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/09/18 18:01	05/16/18 23:33	1
Toluene-d8 (Surr)	91		75 - 124	05/09/18 18:01	05/16/18 23:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B02 (0-5)

Lab Sample ID: 500-145183-6

Date Collected: 05/09/18 10:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B02 (0-5)

Lab Sample ID: 500-145183-6

Date Collected: 05/09/18 10:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/16/18 07:21	05/17/18 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	134	X	46 - 133	05/16/18 07:21	05/17/18 15:46	1
Phenol-d5	126	X	46 - 125	05/16/18 07:21	05/17/18 15:46	1
Nitrobenzene-d5	117		41 - 120	05/16/18 07:21	05/17/18 15:46	1
2-Fluorobiphenyl	129	X	44 - 121	05/16/18 07:21	05/17/18 15:46	1
2,4,6-Tribromophenol	116		25 - 139	05/16/18 07:21	05/17/18 15:46	1
Terphenyl-d14	169	X	35 - 160	05/16/18 07:21	05/17/18 15:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Arsenic	2.6		0.57	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Barium	42		0.57	0.065	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Beryllium	0.52		0.23	0.053	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Boron	5.5	B	2.8	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Cadmium	0.11	B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Calcium	13000	B	11	1.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Chromium	15		0.57	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Cobalt	6.6		0.28	0.074	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Copper	12		0.57	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Iron	13000		11	5.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Lead	6.6		0.28	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Magnesium	8700	B	5.7	2.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Manganese	190		0.57	0.082	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Nickel	17		0.57	0.17	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Potassium	1300		28	10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Selenium	<0.57		0.57	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Silver	0.27	J	0.28	0.073	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Sodium	280		57	8.4	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Vanadium	24		0.28	0.067	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1
Zinc	28		1.1	0.50	mg/Kg	☼	05/11/18 17:01	05/14/18 18:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:27	1
Boron	0.061	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B02 (0-5)

Lab Sample ID: 500-145183-6

Date Collected: 05/09/18 10:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0022	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Manganese	0.51		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:27	1
Zinc	0.19	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:27	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.38		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:35	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 11:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 11:53	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0059	mg/Kg	☼	05/17/18 10:56	05/18/18 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU	-		05/15/18 16:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B01 (0-2)

Lab Sample ID: 500-145183-7

Date Collected: 05/09/18 11:05

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 68.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.027		0.025	0.011	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Benzene	<0.0025		0.0025	0.00065	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Bromodichloromethane	<0.0025		0.0025	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Bromoform	<0.0025		0.0025	0.00074	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Bromomethane	<0.0063		0.0063	0.0024	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
2-Butanone (MEK)	<0.0063		0.0063	0.0028	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Carbon disulfide	<0.0063		0.0063	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Carbon tetrachloride	<0.0025		0.0025	0.00074	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Chlorobenzene	<0.0025		0.0025	0.00094	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Chloroethane	<0.0063		0.0063	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Chloroform	<0.0025		0.0025	0.00088	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Chloromethane	<0.0063		0.0063	0.0026	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
cis-1,2-Dichloroethene	<0.0025		0.0025	0.00071	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
cis-1,3-Dichloropropene	<0.0025		0.0025	0.00077	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Dibromochloromethane	<0.0025		0.0025	0.00083	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,1-Dichloroethane	<0.0025		0.0025	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,2-Dichloroethane	<0.0063		0.0063	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,1-Dichloroethene	<0.0025		0.0025	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,2-Dichloropropane	<0.0025		0.0025	0.00066	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,3-Dichloropropane, Total	<0.0025		0.0025	0.00089	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Ethylbenzene	<0.0025		0.0025	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
2-Hexanone	<0.0063		0.0063	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Methylene Chloride	<0.0063		0.0063	0.0025	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
4-Methyl-2-pentanone (MIBK)	<0.0063		0.0063	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Methyl tert-butyl ether	<0.0025		0.0025	0.00074	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Styrene	<0.0025		0.0025	0.00077	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,1,2,2-Tetrachloroethane	<0.0025		0.0025	0.00081	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Tetrachloroethene	<0.0025		0.0025	0.00086	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Toluene	<0.0025		0.0025	0.00064	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
trans-1,2-Dichloroethene	<0.0025		0.0025	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
trans-1,3-Dichloropropene	<0.0025		0.0025	0.00089	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,1,1-Trichloroethane	<0.0025		0.0025	0.00085	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
1,1,2-Trichloroethane	<0.0025		0.0025	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Trichloroethene	<0.0025		0.0025	0.00086	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Vinyl acetate	<0.0063		0.0063	0.0022	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Vinyl chloride	<0.0025		0.0025	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1
Xylenes, Total	<0.0051		0.0051	0.00081	mg/Kg	☼	05/09/18 18:01	05/17/18 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		75 - 131	05/09/18 18:01	05/17/18 11:38	1
Dibromofluoromethane	84		75 - 126	05/09/18 18:01	05/17/18 11:38	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/09/18 18:01	05/17/18 11:38	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 11:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.23		0.23	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Bis(2-chloroethyl)ether	<0.23		0.23	0.069	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
1,3-Dichlorobenzene	<0.23		0.23	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
1,4-Dichlorobenzene	<0.23		0.23	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B01 (0-2)

Lab Sample ID: 500-145183-7

Date Collected: 05/09/18 11:05

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 68.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.23		0.23	0.055	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Methylphenol	<0.23		0.23	0.074	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,2'-oxybis[1-chloropropane]	<0.23		0.23	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
N-Nitrosodi-n-propylamine	<0.093		0.093	0.057	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Hexachloroethane	<0.23		0.23	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Chlorophenol	<0.23		0.23	0.079	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Nitrobenzene	<0.046		0.046	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Bis(2-chloroethoxy)methane	<0.23		0.23	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
1,2,4-Trichlorobenzene	<0.23		0.23	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Isophorone	<0.23		0.23	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4-Dimethylphenol	<0.46		0.46	0.18	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Hexachlorobutadiene	<0.23		0.23	0.073	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Naphthalene	0.011	J	0.046	0.0071	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4-Dichlorophenol	<0.46		0.46	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Chloroaniline	<0.93		0.93	0.22	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4,6-Trichlorophenol	<0.46		0.46	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4,5-Trichlorophenol	<0.46		0.46	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Hexachlorocyclopentadiene	<0.93		0.93	0.27	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Methylnaphthalene	0.017	J	0.093	0.0085	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Nitroaniline	<0.23		0.23	0.062	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Chloronaphthalene	<0.23		0.23	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Chloro-3-methylphenol	<0.46		0.46	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,6-Dinitrotoluene	<0.23		0.23	0.091	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2-Nitrophenol	<0.46		0.46	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
3-Nitroaniline	<0.46		0.46	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Dimethyl phthalate	<0.23		0.23	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4-Dinitrophenol	<0.93		0.93	0.82	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Acenaphthylene	0.027	J	0.046	0.0061	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
2,4-Dinitrotoluene	<0.23		0.23	0.074	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Acenaphthene	0.012	J	0.046	0.0083	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Dibenzofuran	<0.23		0.23	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Nitrophenol	<0.93		0.93	0.44	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Fluorene	0.013	J	0.046	0.0065	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Nitroaniline	<0.46		0.46	0.19	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Bromophenyl phenyl ether	<0.23		0.23	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Hexachlorobenzene	<0.093		0.093	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Diethyl phthalate	<0.23		0.23	0.078	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4-Chlorophenyl phenyl ether	<0.23		0.23	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Pentachlorophenol	<0.93		0.93	0.74	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
N-Nitrosodiphenylamine	<0.23		0.23	0.055	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
4,6-Dinitro-2-methylphenol	<0.93		0.93	0.37	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Phenanthrene	0.15		0.046	0.0065	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Anthracene	0.040	J	0.046	0.0077	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Carbazole	<0.23		0.23	0.12	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Di-n-butyl phthalate	<0.23		0.23	0.071	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Fluoranthene	0.30		0.046	0.0086	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Pyrene	0.26		0.046	0.0092	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Butyl benzyl phthalate	<0.23		0.23	0.088	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Benzo[a]anthracene	0.15		0.046	0.0062	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B01 (0-2)

Lab Sample ID: 500-145183-7

Date Collected: 05/09/18 11:05

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 68.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20		0.046	0.013	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
3,3'-Dichlorobenzidine	<0.23		0.23	0.065	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Bis(2-ethylhexyl) phthalate	<0.23		0.23	0.085	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Di-n-octyl phthalate	<0.23		0.23	0.076	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Benzo[b]fluoranthene	0.27		0.046	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Benzo[k]fluoranthene	0.11		0.046	0.014	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Benzo[a]pyrene	0.16		0.046	0.0090	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Indeno[1,2,3-cd]pyrene	0.065		0.046	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Dibenz(a,h)anthracene	0.020	J	0.046	0.0089	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
Benzo[g,h,i]perylene	0.075		0.046	0.015	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1
3 & 4 Methylphenol	<0.23		0.23	0.077	mg/Kg	☼	05/16/18 07:21	05/19/18 02:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		46 - 133	05/16/18 07:21	05/19/18 02:39	1
Phenol-d5	99		46 - 125	05/16/18 07:21	05/19/18 02:39	1
Nitrobenzene-d5	86		41 - 120	05/16/18 07:21	05/19/18 02:39	1
2-Fluorobiphenyl	99		44 - 121	05/16/18 07:21	05/19/18 02:39	1
2,4,6-Tribromophenol	98		25 - 139	05/16/18 07:21	05/19/18 02:39	1
Terphenyl-d14	108		35 - 160	05/16/18 07:21	05/19/18 02:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.4	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Arsenic	3.6		0.69	0.23	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Barium	58		0.69	0.078	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Beryllium	0.46		0.27	0.064	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Boron	7.0	B	3.4	0.32	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Cadmium	0.99	B	0.14	0.025	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Calcium	38000	B	14	2.3	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Chromium	15		0.69	0.34	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Cobalt	5.2		0.34	0.090	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Copper	33		0.69	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Iron	12000		14	7.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Lead	250		0.34	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Magnesium	23000	B	6.9	3.4	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Manganese	180		0.69	0.10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Nickel	15		0.69	0.20	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Potassium	940		34	12	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Selenium	<0.69		0.69	0.40	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Silver	0.21	J	0.34	0.089	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Sodium	1100		69	10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Thallium	<0.69		0.69	0.34	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Vanadium	24		0.34	0.081	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1
Zinc	120		1.4	0.60	mg/Kg	☼	05/11/18 17:01	05/14/18 18:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:31	1
Boron	0.080	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Client Sample ID: 2956V-05-B01 (0-2)

Lab Sample ID: 500-145183-7

Date Collected: 05/09/18 11:05

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 68.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0059		0.0050	0.0020	mg/L		05/15/18 15:36	05/16/18 15:31	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:31	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:31	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:36	05/16/18 15:31	1
Lead	0.036		0.0075	0.0075	mg/L		05/15/18 15:36	05/16/18 15:31	1
Manganese	0.63		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:31	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:31	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:36	05/16/18 15:31	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:31	1
Zinc	0.23	J B	0.50	0.020	mg/L		05/15/18 15:36	05/16/18 15:31	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L		05/15/18 15:28	05/16/18 20:39	1
Lead	0.20		0.0075	0.0075	mg/L		05/15/18 15:28	05/18/18 12:28	1
Manganese	0.082		0.025	0.010	mg/L		05/15/18 15:28	05/16/18 20:39	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:36	05/21/18 11:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:36	05/21/18 11:56	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/16/18 13:15	05/17/18 18:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.022	0.0073	mg/Kg	☼	05/17/18 10:56	05/18/18 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.20	0.20	SU			05/15/18 16:35	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
 Contact: _____
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Bill To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145183
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Parameter					Comments
			Date	Time			VOC	SVOC	Total/TCDF Metals	pH	Percent Solids	
4		2956V-05-B03(C-5)	5/9/18	1040	5	S	X	X	X	X	X	
5		2956V-05-B03(C-5)D	5/9/18	1040	5	S	X	X	X	X	X	JH 5/9/18
2956V-05-B02(C-5)												
6		2956V-05-B02(C-5)	5/9/18	1050	5	S	X	X	X	X	X	
7		2956V-05-B01(C-2)	5/9/18	1105	5	S	X	X	X	X	X	

- Preservative Key
- HCL, Cool to 4°
 - H2SO4, Cool to 4°
 - HNO3, Cool to 4°
 - NaOH, Cool to 4°
 - NaOH/Zn, Cool to 4°
 - NaHSO4
 - Cool to 4°
 - None
 - Other

Turnaround Time Required (Business Days)

1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days 15 Days ___ Other ___

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Requested Due Date _____

Relinquished By: <u>J. Wright</u> Company: <u>E+E</u> Date: <u>5/9/18</u> Time: <u>1530</u>	Received By: <u>D. Neal</u> Company: <u>TA</u> Date: <u>5/9/18</u> Time: <u>1530</u>	Lab Courier: <input checked="" type="checkbox"/>
Relinquished By: <u>D. Neal</u> Company: <u>TA</u> Date: <u>5/9/18</u> Time: <u>1730</u>	Received By: <u>Jim</u> Company: <u>TA</u> Date: <u>05/09/18</u> Time: <u>1730</u>	Shipped: <input type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: <input type="checkbox"/>

Matrix Key

- | | |
|--------------------|---------------------|
| WW - Wastewater | SE - Sediment |
| W - Water | SO - Soil |
| S - Soil | L - Leachate |
| SL - Sludge | WI - Wipe |
| MS - Miscellaneous | DW - Drinking Water |
| OL - Oil | C - Other |
| A - Air | |

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145183-2

Login Number: 145183

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.8)(5.3)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145367-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:19:31 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Job ID: 500-145367-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145367-1

Receipt

The samples were received on 5/11/2018 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2956V-08-B03 (0-2) (500-145367-1) and (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Selenium above the reporting limit (RL). The sample 2956V-08-B03 (0-2) (500-145367-1), 2956V-08-B02 (0-5) (500-145367-2) and 2956V-08-B01 (0-6) (500-145367-3) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

Method(s) 6010B: The method blank for preparation batch 500-432824 and analytical batch 500-433000 contained Zinc above the reporting limit (RL). Associated samples 2956V-08-B03 (0-2) (500-145367-1), 2956V-08-B02 (0-5) (500-145367-2) and 2956V-08-B01 (0-6) (500-145367-3) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B03 (0-2)

Lab Sample ID: 500-145367-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.033		0.025	0.011	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0045	J	0.0063	0.0028	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.014	J	0.042	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.018	J	0.042	0.0059	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.21		0.042	0.0059	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.035	J	0.042	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.32		0.042	0.0078	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.042	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.13		0.042	0.0057	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.042	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.042	0.0091	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.061		0.042	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.042	0.0082	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.056		0.042	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.28	J	1.3	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.7		0.63	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	63		0.63	0.072	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.51		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Boron	4.9	B	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.44	B	0.13	0.023	mg/Kg	1	☼	6010B	Total/NA
Calcium	52000	B	63	11	mg/Kg	5	☼	6010B	Total/NA
Chromium	13		0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.7		0.31	0.082	mg/Kg	1	☼	6010B	Total/NA
Copper	15	B	0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		13	6.5	mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.31	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		6.3	3.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	450	B	0.63	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	900		31	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Sodium	660		63	9.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	54	B	1.3	0.55	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.20	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.054	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.64		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145367-1	2956V-08-B03 (0-2)	Solid	05/11/18 08:50	05/11/18 14:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B03 (0-2)

Lab Sample ID: 500-145367-1

Date Collected: 05/11/18 08:50

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 78.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.033		0.025	0.011	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Benzene	<0.0025		0.0025	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Bromodichloromethane	<0.0025		0.0025	0.00052	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Bromoform	<0.0025		0.0025	0.00074	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Bromomethane	<0.0063		0.0063	0.0024	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
2-Butanone (MEK)	0.0045 J		0.0063	0.0028	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Carbon disulfide	<0.0063		0.0063	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Carbon tetrachloride	<0.0025		0.0025	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Chlorobenzene	<0.0025		0.0025	0.00093	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Chloroethane	<0.0063		0.0063	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Chloroform	<0.0025		0.0025	0.00088	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Chloromethane	<0.0063		0.0063	0.0025	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
cis-1,2-Dichloroethene	<0.0025		0.0025	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
cis-1,3-Dichloropropene	<0.0025		0.0025	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Dibromochloromethane	<0.0025		0.0025	0.00083	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,1-Dichloroethane	<0.0025		0.0025	0.00087	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,2-Dichloroethane	<0.0063		0.0063	0.0020	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,1-Dichloroethene	<0.0025		0.0025	0.00087	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,2-Dichloropropane	<0.0025		0.0025	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,3-Dichloropropane, Total	<0.0025		0.0025	0.00089	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Ethylbenzene	<0.0025		0.0025	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
2-Hexanone	<0.0063		0.0063	0.0020	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Methylene Chloride	<0.0063		0.0063	0.0025	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
4-Methyl-2-pentanone (MIBK)	<0.0063		0.0063	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Methyl tert-butyl ether	<0.0025		0.0025	0.00074	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Styrene	<0.0025		0.0025	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,1,2,2-Tetrachloroethane	<0.0025		0.0025	0.00081	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Tetrachloroethene	<0.0025		0.0025	0.00086	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Toluene	<0.0025		0.0025	0.00064	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
trans-1,2-Dichloroethene	<0.0025		0.0025	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
trans-1,3-Dichloropropene	<0.0025		0.0025	0.00089	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,1,1-Trichloroethane	<0.0025		0.0025	0.00085	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
1,1,2-Trichloroethane	<0.0025		0.0025	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Trichloroethene	<0.0025		0.0025	0.00086	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Vinyl acetate	<0.0063		0.0063	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Vinyl chloride	<0.0025		0.0025	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1
Xylenes, Total	<0.0051		0.0051	0.00081	mg/Kg	☼	05/11/18 17:49	05/19/18 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/11/18 17:49	05/19/18 18:49	1
Dibromofluoromethane	84		75 - 126	05/11/18 17:49	05/19/18 18:49	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/11/18 17:49	05/19/18 18:49	1
Toluene-d8 (Surr)	91		75 - 124	05/11/18 17:49	05/19/18 18:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.094	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B03 (0-2)

Date Collected: 05/11/18 08:50

Date Received: 05/11/18 14:00

Lab Sample ID: 500-145367-1

Matrix: Solid

Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Naphthalene	<0.042		0.042	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4,6-Trichlorophenol	<0.42		0.42	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Methylnaphthalene	<0.085		0.085	0.0078	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Chloronaphthalene	<0.21		0.21	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,6-Dinitrotoluene	<0.21		0.21	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4-Dinitrophenol	<0.85		0.85	0.74	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Acenaphthylene	0.014	J	0.042	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Acenaphthene	<0.042		0.042	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Dibenzofuran	<0.21		0.21	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Fluorene	0.018	J	0.042	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Hexachlorobenzene	<0.085		0.085	0.0098	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Pentachlorophenol	<0.85		0.85	0.68	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Phenanthrene	0.21		0.042	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Anthracene	0.035	J	0.042	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Fluoranthene	0.32		0.042	0.0078	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Pyrene	0.24		0.042	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Benzo[a]anthracene	0.13		0.042	0.0057	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B03 (0-2)

Lab Sample ID: 500-145367-1

Date Collected: 05/11/18 08:50

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.14		0.042	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Di-n-octyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Benzo[b]fluoranthene	0.16		0.042	0.0091	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Benzo[k]fluoranthene	0.061		0.042	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Benzo[a]pyrene	0.12		0.042	0.0082	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Indeno[1,2,3-cd]pyrene	0.056		0.042	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0082	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
Benzo[g,h,i]perylene	<0.042		0.042	0.014	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1
3 & 4 Methylphenol	<0.21		0.21	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/21/18 07:31	05/22/18 20:15	1
Phenol-d5	124		46 - 125	05/21/18 07:31	05/22/18 20:15	1
Nitrobenzene-d5	81		41 - 120	05/21/18 07:31	05/22/18 20:15	1
2-Fluorobiphenyl	83		44 - 121	05/21/18 07:31	05/22/18 20:15	1
2,4,6-Tribromophenol	110		25 - 139	05/21/18 07:31	05/22/18 20:15	1
Terphenyl-d14	96		35 - 160	05/21/18 07:31	05/22/18 20:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	1.3	0.24	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Arsenic	3.7		0.63	0.22	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Barium	63		0.63	0.072	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Beryllium	0.51		0.25	0.059	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Boron	4.9	B	3.1	0.29	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Cadmium	0.44	B	0.13	0.023	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Calcium	52000	B	63	11	mg/Kg	☼	05/17/18 16:19	05/19/18 02:47	5
Chromium	13		0.63	0.31	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Cobalt	5.7		0.31	0.082	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Copper	15	B	0.63	0.18	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Iron	12000		13	6.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Lead	29		0.31	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Magnesium	24000		6.3	3.1	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Manganese	450	B	0.63	0.091	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Nickel	12		0.63	0.18	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Potassium	900		31	11	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Selenium	<0.63		0.63	0.37	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Silver	0.15	J	0.31	0.081	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Sodium	660		63	9.3	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Thallium	<0.63		0.63	0.31	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Vanadium	24		0.31	0.074	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1
Zinc	54	B	1.3	0.55	mg/Kg	☼	05/17/18 16:19	05/18/18 12:34	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:41	1
Boron	0.062	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B03 (0-2)

Lab Sample ID: 500-145367-1

Date Collected: 05/11/18 08:50

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 78.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Iron	0.20	J	0.40	0.20	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Manganese	0.23		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Silver	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:41	1
Zinc	0.054	J B	0.50	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:41	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.64		0.025	0.010	mg/L	-	05/18/18 14:25	05/21/18 19:27	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/18/18 14:23	05/21/18 15:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/18/18 14:23	05/21/18 15:25	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/21/18 14:15	05/23/18 23:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.020	0.0067	mg/Kg	☼	05/23/18 09:12	05/24/18 12:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU	-		05/18/18 16:18	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL T

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.52



500-145367 COC

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145367
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.7

Client		Client Project #		Preservative		Parameter		Total/ TCLP Metals		pH		Percent Solids		Preservative Key	
EIE		1009341.0041.02												1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		# of Containers		Matrix								Comments	
176-001-W041A															
Project Location/State		Lab PM		Date		Time									
Marengo, IL		R. Wright		5/11/18		0850		X		X		X			
Sampler		Sample ID		Date		Time									
MF, JH		2956V-08-BOX(0-2)		5/11/18		0850		X		X		X			
		2956V-08-BOX(0-5)		5/11/18		0908		X		X		X			
		2956V-08-BOX(0-6)		5/11/18		0945		X		X		X			

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u>	Company: <u>EIE</u>	Date: <u>5/11/18</u>	Time: <u>1310</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5-11-18</u>	Time: <u>1310</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5-11-18</u>	Time: <u>1400</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CHI</u>	Date: <u>5/11/18</u>	Time: <u>1400</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145367-1

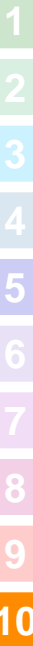
Login Number: 145367

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8200 block of S. Grant Highway (ISGS #3696-29)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.2086 Longitude: -88.55577
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2956V-06-B01 through 2956V-06-B05 were sampled within the construction zone adjacent to ISGS #3696-29 (#2956V-6, Vacant Land). Refer to PSI Report for ISGS #3696-29 (#2956V-6, Vacant Land) including Table 4-4, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145183-4.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

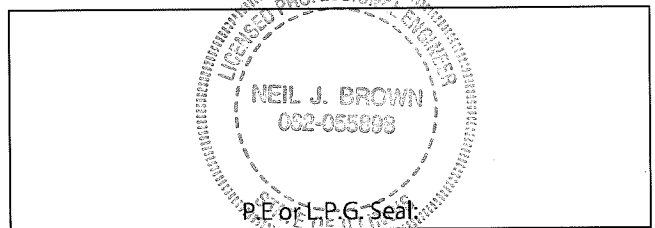
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-29 (Vacant Land)				Comparison Criteria					
	2956V-06-B01		2956V-06-B02		MACs			TACO		
BORING	2956V-06-B01 (0-4)		2956V-06-B02 (0-4)		Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2956V-06-B01 (0-4)	2956V-06-B01 (4-8)	2956V-06-B02 (0-4)	2956V-06-B02 (4-8)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-4	4-8	0-4	4-8						
pH	7.9	8.8	8.4	8.8						
PID	--	--	--	--						
VOCs (mg/kg)										
2-Butanone (MEK)	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Acetone	0.011 J	0.017	0.016 J	0.016 J	25	--	--	70,000	100,000	--
Methylene Chloride	ND U	0.0023 J	ND U	ND U	0.02	--	--	13	34	--
SVOCs (mg/kg)										
Acenaphthylene	0.014 J	ND U	ND U	ND U	--	--	--	--	--	--
Anthracene	0.013 J	ND U	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.078	ND U	0.011 J	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.088	ND U	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.14	ND U	0.021 J	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.039	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.048	ND U	ND U	ND U	9	--	--	9	1,700	--
Chrysene	0.095	ND U	0.014 J	ND U	88	--	--	88	17,000	--
Fluoranthene	0.13	ND U	0.02 J	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	ND U	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.06	ND U	0.01 J	ND U	--	--	--	--	--	--
Pyrene	0.12	ND U	0.018 J	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Antimony	ND U	ND U	0.24 J	ND U	5	--	--	31	82	--
Arsenic	5.3	1.4	3.3	1.6	11.3	13	--	13	61	--
Barium	41	27	56	34	1,500	--	--	5,500	14,000	--
Beryllium	0.4	0.3	0.63	0.47	22	--	--	160	410	--
Boron	4	7.3	9.6	8.6	40	--	--	16,000	41,000	--
Cadmium	0.4	ND U	ND U	ND U	5.2	--	--	78	200	--
Calcium	27,000	87,000	61,000	92,000	--	--	--	--	--	--
Chromium	12	10	17	13	21	--	--	230	690	--
Cobalt	5.5	4.1	7.5	5.2	20	--	--	4,700	12,000	--
Copper	19	8.4	18	12	2,900	--	--	2,900	8,200	--
Iron	13,000	7,500	15,000	9,800	15,000	15,900	--	--	--	--
Lead	66	4.6	12	4.9	107	--	--	400	700	--
Magnesium	16,000	43,000	26,000	39,000	325,000	--	--	--	730,000	--
Manganese	280	150	320	190	630	636	--	1,600	4,100	--
Mercury	0.034	0.0086 J	0.016 J	0.013 J	0.89	--	--	10	0.1	--
Nickel	13	10	20	13	100	--	--	1,600	4,100	--
Potassium	820	1,100	2,000	1,700	--	--	--	--	--	--
Silver	0.2 J	0.18 J	0.25 J	0.21 J	4.4	--	--	390	1,000	--
Sodium	330	360	590	440	--	--	--	--	--	--
Vanadium	25	14	26	17	550	--	--	550	1,400	--
Zinc	63	20	38	25	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.41 J	0.31 J	0.47 J	0.28 J	--	--	--	--	--	2
Boron	0.053 J	ND U	0.061 J	ND U	--	--	--	--	--	2
Cadmium	0.0047 J	0.0021 J	0.0032 J	0.002 J	--	--	--	--	--	0.005
Cobalt	ND U	ND U	ND U	0.021 J	--	--	--	--	--	1
Lead	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.53 L	0.61 L	3.1 L	2.4 L	--	--	--	--	--	0.15
Nickel	ND U	0.012 J	0.019 J	0.023 J	--	--	--	--	--	0.1
SPLP Metals (mg/L)										
Cadmium	NA	NA	NA	NA	--	--	--	--	--	0.005
Lead	NA	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	0.73 L	0.19 L	0.63 L	0.51 L	--	--	--	--	--	0.15

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-29 (Vacant Land)			Comparison Criteria					
	2956V-06-B03	2956V-06-B04	2956V-06-B05	MACs			TACO		
BORING	2956V-06-B03 (0-5)	2956V-06-B04 (0-3)	2956V-06-B05 (0-2.5)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE									
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-5	0-3	0-2.5						
pH	7.8	7.9	7.8						
PID	--	--	--						
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	0.0031 J	ND U	--	--	--	--	--	--
Acetone	0.015 J	0.024	ND U	25	--	--	70,000	100,000	--
Methylene Chloride	ND U	ND U	ND U	0.02	--	--	13	34	--
SVOCs (mg/kg)									
Acenaphthylene	ND U	0.0069 J	0.011 J	--	--	--	--	--	--
Anthracene	ND U	ND U	0.0093 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.015 J	0.03 J	0.039 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.014 J	0.033 J	0.043	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	0.05	0.073	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	0.023 J	0.03 J	9	--	--	9	1,700	--
Chrysene	0.013 J	0.036 J	0.047	88	--	--	88	17,000	--
Fluoranthene	0.029 J	0.049	0.07	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	0.013 J	ND U	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.017 J	0.021 J	0.033 J	--	--	--	--	--	--
Pyrene	0.025 J	0.044	0.064	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Antimony	ND U	ND U	ND U	5	--	--	31	82	--
Arsenic	3.3	3.8	3.5	11.3	13	--	13	61	--
Barium	44	57	55	1,500	--	--	5,500	14,000	--
Beryllium	0.44	0.39	0.41	22	--	--	160	410	--
Boron	4.7	4.9	4.4	40	--	--	16,000	41,000	--
Cadmium	ND U	0.39	0.42	5.2	--	--	78	200	--
Calcium	32,000	27,000	33,000	--	--	--	--	--	--
Chromium	13	13	11	21	--	--	230	690	--
Cobalt	5.5	6.2	5.2	20	--	--	4,700	12,000	--
Copper	16	18	22	2,900	--	--	2,900	8,200	--
Iron	12,000	12,000	11,000	15,000	15,900	--	--	--	--
Lead	18	63	56	107	--	--	400	700	--
Magnesium	21,000	17,000	21,000	325,000	--	--	--	730,000	--
Manganese	220	430	320	630	636	--	1,600	4,100	--
Mercury	0.029	0.024	0.03	0.89	--	--	10	0.1	--
Nickel	14	13	12	100	--	--	1,600	4,100	--
Potassium	970	860	810	--	--	--	--	--	--
Silver	0.2 J	0.18 J	0.17 J	4.4	--	--	390	1,000	--
Sodium	300	620	580	--	--	--	--	--	--
Vanadium	24	25	23	550	--	--	550	1,400	--
Zinc	45	54	64	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.39 J	0.45 J	0.45 J	--	--	--	--	--	2
Boron	0.057 J	0.058 J	0.077 J	--	--	--	--	--	2
Cadmium	0.0035 J	0.005	0.004 J	--	--	--	--	--	0.005
Cobalt	ND U	ND U	ND U	--	--	--	--	--	1
Lead	ND U	0.0088 L	ND U	--	--	--	--	--	0.0075
Manganese	0.49 L	0.93 L	0.28 L	--	--	--	--	--	0.15
Nickel	ND U	ND U	ND U	--	--	--	--	--	0.1
SPLP Metals (mg/L)									
Cadmium	NA	0.0031 J	NA	--	--	--	--	--	0.005
Lead	NA	0.18 L	NA	--	--	--	--	--	0.0075
Manganese	0.54 L	0.55 L	0.39 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145183-4
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/23/2018 4:20:05 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Job ID: 500-145183-4

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-145183-4**

Receipt

The samples were received on 5/9/2018 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.8° C and 5.3° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported. (500-145183-E-1-J MS) and (500-145183-E-1-K MSD)

Method(s) 8270D: Surrogate recovery for the following samples was outside the upper control limit: 2956V-06-B02 (0-4) (500-145183-13), 2956V-06-B02 (4-8) (500-145183-14), and 2956V-06-B01 (4-8) (500-145183-16). The samples did not contain any target analytes detected above the reporting limit (RL); therefore, re-extraction and re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B05 (0-2.5)

Lab Sample ID: 500-145183-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.011	J	0.040	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.033	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0093	J	0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.070		0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.064		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.039	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.047		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.073		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.030	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.043		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.5		0.62	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	55		0.62	0.070	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Boron	4.4	B	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.42	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	33000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.62	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.62	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		12	6.4	mg/Kg	1	☼	6010B	Total/NA
Lead	56		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	6.2	3.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.62	0.090	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.62	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	810		31	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.17	J	0.31	0.080	mg/Kg	1	☼	6010B	Total/NA
Sodium	580		62	9.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.31	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	64		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.077	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0040	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.16	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B04 (0-3)

Lab Sample ID: 500-145183-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.024		0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0031	J	0.0041	0.0018	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.0069	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.021	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.049		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.044		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.030	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.036	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.050		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B04 (0-3) (Continued)

Lab Sample ID: 500-145183-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.023	J	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.033	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.013	J	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.8		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	4.9	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.39	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	27000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.2		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	63		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	17000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	430		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	860		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	620		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0050		0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.0088		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.93		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J B	0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Lead	0.18		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.55		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B03 (0-5)

Lab Sample ID: 500-145183-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.015	J	0.018	0.0079	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.017	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.029	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.015	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.013	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.014	J	0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.3		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.56	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.31	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	32000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B03 (0-5) (Continued)

Lab Sample ID: 500-145183-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	13		0.56	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.5		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	220		0.56	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	970		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.057	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0035	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.31	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.54		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B02 (0-4)

Lab Sample ID: 500-145183-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.017	0.0072	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.010	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.020	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.018	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.011	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.014	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.24	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.3		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.63		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	9.6	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	61000	B	58	9.8	mg/Kg	5	☼	6010B	Total/NA
Chromium	17		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.5		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.25	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	590		58	8.6	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (0-4) (Continued)

Lab Sample ID: 500-145183-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	26		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	38		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.061	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.036	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.63		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B02 (4-8)

Lab Sample ID: 500-145183-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.017	0.0075	mg/Kg	1	☼	8260B	Total/NA
Arsenic	1.6		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	34		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	8.6	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	92000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	13		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9800		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	4.9		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		28	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	440		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	25		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.27	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B01 (0-4)

Lab Sample ID: 500-145183-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011	J	0.017	0.0074	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (0-4) (Continued)

Lab Sample ID: 500-145183-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.060		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.013	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.078		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.095		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.14		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.048		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.088		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	41		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	4.0	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.40	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	27000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.5		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	66		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	280		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	820		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		58	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	63		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.053	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0047	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.53		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.73		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-06-B01 (4-8)

Lab Sample ID: 500-145183-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.017		0.015	0.0066	mg/Kg	1	☼	8260B	Total/NA
Methylene Chloride	0.0023	J	0.0038	0.0015	mg/Kg	1	☼	8260B	Total/NA
Arsenic	1.4		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	27		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	87000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	10		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (4-8) (Continued)

Lab Sample ID: 500-145183-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	4.1		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	8.4		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	7500		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	4.6		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	43000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	150		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	360		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	20		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.61		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.17	J F1 B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0086	J	0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145183-10	2956V-06-B05 (0-2.5)	Solid	05/09/18 12:33	05/09/18 17:30
500-145183-11	2956V-06-B04 (0-3)	Solid	05/09/18 12:55	05/09/18 17:30
500-145183-12	2956V-06-B03 (0-5)	Solid	05/09/18 14:02	05/09/18 17:30
500-145183-13	2956V-06-B02 (0-4)	Solid	05/09/18 14:15	05/09/18 17:30
500-145183-14	2956V-06-B02 (4-8)	Solid	05/09/18 14:17	05/09/18 17:30
500-145183-15	2956V-06-B01 (0-4)	Solid	05/09/18 14:22	05/09/18 17:30
500-145183-16	2956V-06-B01 (4-8)	Solid	05/09/18 14:25	05/09/18 17:30



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B05 (0-2.5)

Lab Sample ID: 500-145183-10

Date Collected: 05/09/18 12:33

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 79.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0089	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Chloromethane	<0.0051		0.0051	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Dibromochloromethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,2-Dichloropropane	<0.0020		0.0020	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	05/09/18 18:01	05/17/18 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/09/18 18:01	05/17/18 12:56	1
Dibromofluoromethane	85		75 - 126	05/09/18 18:01	05/17/18 12:56	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/09/18 18:01	05/17/18 12:56	1
Toluene-d8 (Surr)	91		75 - 124	05/09/18 18:01	05/17/18 12:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B05 (0-2.5)

Lab Sample ID: 500-145183-10

Date Collected: 05/09/18 12:33

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Acenaphthylene	0.011	J	0.040	0.0053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Phenanthrene	0.033	J	0.040	0.0056	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Anthracene	0.0093	J	0.040	0.0067	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Fluoranthene	0.070		0.040	0.0074	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Pyrene	0.064		0.040	0.0080	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Benzo[a]anthracene	0.039	J	0.040	0.0054	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B05 (0-2.5)

Lab Sample ID: 500-145183-10

Date Collected: 05/09/18 12:33

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.047		0.040	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Benzo[b]fluoranthene	0.073		0.040	0.0087	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Benzo[k]fluoranthene	0.030	J	0.040	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Benzo[a]pyrene	0.043		0.040	0.0078	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	05/16/18 07:21	05/19/18 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	105		46 - 133	05/16/18 07:21	05/19/18 03:58	1
Phenol-d5	79		46 - 125	05/16/18 07:21	05/19/18 03:58	1
Nitrobenzene-d5	87		41 - 120	05/16/18 07:21	05/19/18 03:58	1
2-Fluorobiphenyl	96		44 - 121	05/16/18 07:21	05/19/18 03:58	1
2,4,6-Tribromophenol	88		25 - 139	05/16/18 07:21	05/19/18 03:58	1
Terphenyl-d14	107		35 - 160	05/16/18 07:21	05/19/18 03:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Arsenic	3.5		0.62	0.21	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Barium	55		0.62	0.070	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Beryllium	0.41		0.25	0.058	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Boron	4.4	B	3.1	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Cadmium	0.42	B	0.12	0.022	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Calcium	33000	B	12	2.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Chromium	11		0.62	0.31	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Cobalt	5.2		0.31	0.081	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Copper	22		0.62	0.17	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Iron	11000		12	6.4	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Lead	56		0.31	0.14	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Magnesium	21000	B	6.2	3.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Manganese	320		0.62	0.090	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Nickel	12		0.62	0.18	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Potassium	810		31	11	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Selenium	<0.62		0.62	0.36	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Silver	0.17	J	0.31	0.080	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Sodium	580		62	9.1	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Thallium	<0.62		0.62	0.31	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Vanadium	23		0.31	0.073	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1
Zinc	64		1.2	0.54	mg/Kg	☼	05/11/18 17:01	05/14/18 18:36	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:51	1
Boron	0.077	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B05 (0-2.5)

Lab Sample ID: 500-145183-10

Date Collected: 05/09/18 12:33

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 79.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0040	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Manganese	0.28		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:51	1
Zinc	0.16	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:51	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.39		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:51	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:13	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.019	0.0063	mg/Kg	☼	05/17/18 10:56	05/18/18 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU	-		05/15/18 16:41	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B04 (0-3)

Lab Sample ID: 500-145183-11

Date Collected: 05/09/18 12:55

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024		0.016	0.0071	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
2-Butanone (MEK)	0.0031	J	0.0041	0.0018	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/09/18 18:01	05/17/18 13:22	1
Dibromofluoromethane	86		75 - 126	05/09/18 18:01	05/17/18 13:22	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/09/18 18:01	05/17/18 13:22	1
Toluene-d8 (Surr)	91		75 - 124	05/09/18 18:01	05/17/18 13:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B04 (0-3)

Lab Sample ID: 500-145183-11

Date Collected: 05/09/18 12:55

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Acenaphthylene	0.0069	J	0.039	0.0052	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Phenanthrene	0.021	J	0.039	0.0055	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Fluoranthene	0.049		0.039	0.0073	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Pyrene	0.044		0.039	0.0078	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Benzo[a]anthracene	0.030	J	0.039	0.0053	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B04 (0-3)

Lab Sample ID: 500-145183-11

Date Collected: 05/09/18 12:55

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.036	J	0.039	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Benzo[b]fluoranthene	0.050		0.039	0.0084	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Benzo[k]fluoranthene	0.023	J	0.039	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Benzo[a]pyrene	0.033	J	0.039	0.0076	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Indeno[1,2,3-cd]pyrene	0.013	J	0.039	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/16/18 07:21	05/19/18 04:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	112		46 - 133	05/16/18 07:21	05/19/18 04:24	1
Phenol-d5	82		46 - 125	05/16/18 07:21	05/19/18 04:24	1
Nitrobenzene-d5	98		41 - 120	05/16/18 07:21	05/19/18 04:24	1
2-Fluorobiphenyl	103		44 - 121	05/16/18 07:21	05/19/18 04:24	1
2,4,6-Tribromophenol	89		25 - 139	05/16/18 07:21	05/19/18 04:24	1
Terphenyl-d14	112		35 - 160	05/16/18 07:21	05/19/18 04:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Arsenic	3.8		0.57	0.20	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Barium	57		0.57	0.065	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Beryllium	0.39		0.23	0.053	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Boron	4.9	B	2.9	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Cadmium	0.39	B	0.11	0.021	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Calcium	27000	B	11	1.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Chromium	13		0.57	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Cobalt	6.2		0.29	0.075	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Copper	18		0.57	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Iron	12000		11	6.0	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Lead	63		0.29	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Magnesium	17000	B	5.7	2.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Manganese	430		0.57	0.083	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Nickel	13		0.57	0.17	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Potassium	860		29	10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Silver	0.18	J	0.29	0.074	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Sodium	620		57	8.5	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Vanadium	25		0.29	0.068	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1
Zinc	54		1.1	0.50	mg/Kg	☼	05/11/18 17:01	05/14/18 18:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:55	1
Boron	0.058	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B04 (0-3)

Lab Sample ID: 500-145183-11

Date Collected: 05/09/18 12:55

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0050		0.0050	0.0020	mg/L		05/15/18 15:36	05/16/18 15:55	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:55	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:55	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:36	05/16/18 15:55	1
Lead	0.0088		0.0075	0.0075	mg/L		05/15/18 15:36	05/16/18 15:55	1
Manganese	0.93		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:55	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:55	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:36	05/16/18 15:55	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:36	05/16/18 15:55	1
Zinc	0.048	J B	0.50	0.020	mg/L		05/15/18 15:36	05/16/18 15:55	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L		05/15/18 15:28	05/16/18 20:55	1
Lead	0.18		0.0075	0.0075	mg/L		05/15/18 15:28	05/18/18 12:32	1
Manganese	0.55		0.025	0.010	mg/L		05/15/18 15:28	05/16/18 20:55	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:36	05/21/18 12:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:36	05/21/18 12:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/16/18 13:15	05/17/18 18:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0062	mg/Kg	☼	05/17/18 10:56	05/18/18 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU			05/15/18 16:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B03 (0-5)

Lab Sample ID: 500-145183-12

Date Collected: 05/09/18 14:02

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.015	J	0.018	0.0079	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Chloroethane	<0.0046		0.0046	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/09/18 18:01	05/17/18 13:48	1
Dibromofluoromethane	86		75 - 126	05/09/18 18:01	05/17/18 13:48	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/09/18 18:01	05/17/18 13:48	1
Toluene-d8 (Surr)	93		75 - 124	05/09/18 18:01	05/17/18 13:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B03 (0-5)

Lab Sample ID: 500-145183-12

Date Collected: 05/09/18 14:02

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Phenanthrene	0.017	J	0.037	0.0051	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Fluoranthene	0.029	J	0.037	0.0068	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Pyrene	0.025	J	0.037	0.0073	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Benzo[a]anthracene	0.015	J	0.037	0.0050	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B03 (0-5)

Lab Sample ID: 500-145183-12

Date Collected: 05/09/18 14:02

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.013	J	0.037	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Benzo[a]pyrene	0.014	J	0.037	0.0071	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/16/18 07:21	05/19/18 04:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		46 - 133	05/16/18 07:21	05/19/18 04:51	1
Phenol-d5	71		46 - 125	05/16/18 07:21	05/19/18 04:51	1
Nitrobenzene-d5	97		41 - 120	05/16/18 07:21	05/19/18 04:51	1
2-Fluorobiphenyl	97		44 - 121	05/16/18 07:21	05/19/18 04:51	1
2,4,6-Tribromophenol	80		25 - 139	05/16/18 07:21	05/19/18 04:51	1
Terphenyl-d14	107		35 - 160	05/16/18 07:21	05/19/18 04:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Arsenic	3.3		0.56	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Barium	44		0.56	0.063	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Beryllium	0.44		0.22	0.052	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Boron	4.7	B	2.8	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Cadmium	0.31	B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Calcium	32000	B	11	1.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Chromium	13		0.56	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Cobalt	5.5		0.28	0.073	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Copper	16		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Iron	12000		11	5.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Lead	18		0.28	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Magnesium	21000	B	5.6	2.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Manganese	220		0.56	0.080	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Nickel	14		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Potassium	970		28	9.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Silver	0.20	J	0.28	0.072	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Sodium	300		56	8.2	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Vanadium	24		0.28	0.065	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1
Zinc	45		1.1	0.49	mg/Kg	☼	05/11/18 17:01	05/14/18 18:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.39	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:59	1
Boron	0.057	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B03 (0-5)

Lab Sample ID: 500-145183-12

Date Collected: 05/09/18 14:02

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0035	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Manganese	0.49		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:59	1
Zinc	0.31	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:59	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.54		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:59	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:20	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.017	0.0058	mg/Kg	☼	05/17/18 10:56	05/18/18 15:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU	-		05/15/18 16:45	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (0-4)

Lab Sample ID: 500-145183-13

Date Collected: 05/09/18 14:15

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.017	0.0072	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Chloroform	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/09/18 18:01	05/17/18 14:14	1
Dibromofluoromethane	87		75 - 126	05/09/18 18:01	05/17/18 14:14	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	05/09/18 18:01	05/17/18 14:14	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 14:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (0-4)

Lab Sample ID: 500-145183-13

Date Collected: 05/09/18 14:15

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Phenanthrene	0.010	J	0.039	0.0055	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Fluoranthene	0.020	J	0.039	0.0073	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Pyrene	0.018	J	0.039	0.0078	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Benzo[a]anthracene	0.011	J	0.039	0.0053	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (0-4)

Lab Sample ID: 500-145183-13

Date Collected: 05/09/18 14:15

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.014	J	0.039	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Benzo[b]fluoranthene	0.021	J	0.039	0.0085	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/16/18 07:21	05/17/18 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	130		46 - 133	05/16/18 07:21	05/17/18 19:05	1
Phenol-d5	125		46 - 125	05/16/18 07:21	05/17/18 19:05	1
Nitrobenzene-d5	114		41 - 120	05/16/18 07:21	05/17/18 19:05	1
2-Fluorobiphenyl	126	X	44 - 121	05/16/18 07:21	05/17/18 19:05	1
2,4,6-Tribromophenol	111		25 - 139	05/16/18 07:21	05/17/18 19:05	1
Terphenyl-d14	165	X	35 - 160	05/16/18 07:21	05/17/18 19:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.24	J	1.2	0.23	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Arsenic	3.3		0.58	0.20	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Barium	56		0.58	0.066	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Beryllium	0.63		0.23	0.054	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Boron	9.6	B	2.9	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Cadmium	0.21	B	0.12	0.021	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Calcium	61000	B	58	9.8	mg/Kg	☼	05/11/18 17:01	05/16/18 04:28	5
Chromium	17		0.58	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Cobalt	7.5		0.29	0.076	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Copper	18		0.58	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Iron	15000		12	6.0	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Lead	12		0.29	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Magnesium	26000	B	5.8	2.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Manganese	320		0.58	0.084	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Nickel	20		0.58	0.17	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Potassium	2000		29	10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Silver	0.25	J	0.29	0.075	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Sodium	590		58	8.6	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Vanadium	26		0.29	0.068	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1
Zinc	38		1.2	0.51	mg/Kg	☼	05/11/18 17:01	05/14/18 18:49	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.47	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 16:35	1
Boron	0.061	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (0-4)

Lab Sample ID: 500-145183-13

Date Collected: 05/09/18 14:15

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 83.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0032	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Manganese	3.1		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Nickel	0.019	J	0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:35	1
Zinc	0.036	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:35	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.63		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 21:03	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:51	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 19:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0061	mg/Kg	☼	05/17/18 10:56	05/18/18 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.20	0.20	SU	-		05/15/18 16:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (4-8)

Lab Sample ID: 500-145183-14

Date Collected: 05/09/18 14:17

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 84.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.017	0.0075	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/09/18 18:01	05/17/18 14:40	1
Dibromofluoromethane	85		75 - 126	05/09/18 18:01	05/17/18 14:40	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/09/18 18:01	05/17/18 14:40	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 14:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (4-8)

Lab Sample ID: 500-145183-14

Date Collected: 05/09/18 14:17

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 84.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (4-8)

Lab Sample ID: 500-145183-14

Date Collected: 05/09/18 14:17

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 84.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/17/18 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/16/18 07:21	05/17/18 16:15	1
Phenol-d5	130	X	46 - 125	05/16/18 07:21	05/17/18 16:15	1
Nitrobenzene-d5	124	X	41 - 120	05/16/18 07:21	05/17/18 16:15	1
2-Fluorobiphenyl	133	X	44 - 121	05/16/18 07:21	05/17/18 16:15	1
2,4,6-Tribromophenol	111		25 - 139	05/16/18 07:21	05/17/18 16:15	1
Terphenyl-d14	163	X	35 - 160	05/16/18 07:21	05/17/18 16:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Arsenic	1.6		0.56	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Barium	34		0.56	0.064	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Beryllium	0.47		0.23	0.053	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Boron	8.6	B	2.8	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Cadmium	0.11	B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Calcium	92000	B	110	19	mg/Kg	☼	05/11/18 17:01	05/16/18 04:32	10
Chromium	13		0.56	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Cobalt	5.2		0.28	0.074	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Copper	12		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Iron	9800		11	5.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Lead	4.9		0.28	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Magnesium	39000	B	5.6	2.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Manganese	190		0.56	0.082	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Nickel	13		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Potassium	1700		28	10	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Silver	0.21	J	0.28	0.073	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Sodium	440		56	8.3	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Vanadium	17		0.28	0.067	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1
Zinc	25		1.1	0.49	mg/Kg	☼	05/11/18 17:01	05/14/18 18:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 16:39	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B02 (4-8)

Lab Sample ID: 500-145183-14

Date Collected: 05/09/18 14:17

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 84.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Cobalt	0.021	J	0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Manganese	2.4		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Nickel	0.023	J	0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:39	1
Zinc	0.27	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:39	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.51		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 21:15	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:54	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 19:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.018	0.0060	mg/Kg	☼	05/17/18 10:56	05/18/18 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.20	0.20	SU	-		05/15/18 16:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (0-4)

Lab Sample ID: 500-145183-15

Date Collected: 05/09/18 14:22

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011	J	0.017	0.0074	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/09/18 18:01	05/17/18 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/09/18 18:01	05/17/18 15:06	1
Dibromofluoromethane	86		75 - 126	05/09/18 18:01	05/17/18 15:06	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/09/18 18:01	05/17/18 15:06	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 15:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (0-4)

Lab Sample ID: 500-145183-15

Date Collected: 05/09/18 14:22

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Phenanthrene	0.060		0.038	0.0053	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Anthracene	0.013	J	0.038	0.0064	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Fluoranthene	0.13		0.038	0.0071	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Pyrene	0.12		0.038	0.0076	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Benzo[a]anthracene	0.078		0.038	0.0051	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (0-4)

Lab Sample ID: 500-145183-15

Date Collected: 05/09/18 14:22

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.095		0.038	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Benzo[b]fluoranthene	0.14		0.038	0.0082	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Benzo[k]fluoranthene	0.048		0.038	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Benzo[a]pyrene	0.088		0.038	0.0074	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/16/18 07:21	05/19/18 05:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	113		46 - 133	05/16/18 07:21	05/19/18 05:17	1
Phenol-d5	101		46 - 125	05/16/18 07:21	05/19/18 05:17	1
Nitrobenzene-d5	97		41 - 120	05/16/18 07:21	05/19/18 05:17	1
2-Fluorobiphenyl	103		44 - 121	05/16/18 07:21	05/19/18 05:17	1
2,4,6-Tribromophenol	101		25 - 139	05/16/18 07:21	05/19/18 05:17	1
Terphenyl-d14	117		35 - 160	05/16/18 07:21	05/19/18 05:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Arsenic	5.3		0.58	0.20	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Barium	41		0.58	0.066	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Beryllium	0.40		0.23	0.054	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Boron	4.0 B		2.9	0.27	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Cadmium	0.40 B		0.12	0.021	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Calcium	27000 B		12	2.0	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Chromium	12		0.58	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Cobalt	5.5		0.29	0.075	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Copper	19		0.58	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Iron	13000		12	6.0	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Lead	66		0.29	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Magnesium	16000 B		5.8	2.9	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Manganese	280		0.58	0.084	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Nickel	13		0.58	0.17	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Potassium	820		29	10	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Silver	0.20 J		0.29	0.074	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Sodium	330		58	8.5	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Vanadium	25		0.29	0.068	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1
Zinc	63		1.2	0.51	mg/Kg	☼	05/11/18 17:01	05/14/18 19:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.41 J		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 16:03	1
Boron	0.053 J		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (0-4)

Lab Sample ID: 500-145183-15

Date Collected: 05/09/18 14:22

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 85.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0047	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Manganese	0.53		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:03	1
Zinc	0.13	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:03	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.73		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 21:19	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:23	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.017	0.0057	mg/Kg	☼	05/17/18 10:56	05/18/18 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/15/18 16:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (4-8)

Lab Sample ID: 500-145183-16

Date Collected: 05/09/18 14:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.017		0.015	0.0066	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Carbon disulfide	<0.0038		0.0038	0.00079	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Ethylbenzene	<0.0015		0.0015	0.00073	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Methylene Chloride	0.0023 J		0.0038	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,1,1,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Vinyl acetate	<0.0038		0.0038	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Vinyl chloride	<0.0015		0.0015	0.00067	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1
Xylenes, Total	<0.0030		0.0030	0.00049	mg/Kg	☼	05/09/18 18:01	05/17/18 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/09/18 18:01	05/17/18 15:33	1
Dibromofluoromethane	83		75 - 126	05/09/18 18:01	05/17/18 15:33	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	05/09/18 18:01	05/17/18 15:33	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 15:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (4-8)

Lab Sample ID: 500-145183-16

Date Collected: 05/09/18 14:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Phenanthrene	<0.037		0.037	0.0051	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Fluoranthene	<0.037		0.037	0.0068	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (4-8)

Lab Sample ID: 500-145183-16

Date Collected: 05/09/18 14:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Benzo[b]fluoranthene	<0.037		0.037	0.0079	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Benzo[a]pyrene	<0.037		0.037	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0095	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/16/18 07:21	05/17/18 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/16/18 07:21	05/17/18 16:43	1
Phenol-d5	129	X	46 - 125	05/16/18 07:21	05/17/18 16:43	1
Nitrobenzene-d5	119		41 - 120	05/16/18 07:21	05/17/18 16:43	1
2-Fluorobiphenyl	128	X	44 - 121	05/16/18 07:21	05/17/18 16:43	1
2,4,6-Tribromophenol	113		25 - 139	05/16/18 07:21	05/17/18 16:43	1
Terphenyl-d14	165	X	35 - 160	05/16/18 07:21	05/17/18 16:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Arsenic	1.4		0.56	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Barium	27		0.56	0.064	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Beryllium	0.30		0.22	0.052	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Boron	7.3	B	2.8	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Cadmium	0.12	B	0.11	0.020	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Calcium	87000	B	110	19	mg/Kg	☼	05/11/18 17:01	05/16/18 04:37	10
Chromium	10		0.56	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Cobalt	4.1		0.28	0.074	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Copper	8.4		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Iron	7500		11	5.8	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Lead	4.6		0.28	0.13	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Magnesium	43000	B	5.6	2.8	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Manganese	150		0.56	0.081	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Nickel	10		0.56	0.16	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Potassium	1100		28	9.9	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Silver	0.18	J	0.28	0.072	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Sodium	360		56	8.3	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Vanadium	14		0.28	0.066	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1
Zinc	20		1.1	0.49	mg/Kg	☼	05/11/18 17:01	05/14/18 19:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 16:07	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 16:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Client Sample ID: 2956V-06-B01 (4-8)

Lab Sample ID: 500-145183-16

Date Collected: 05/09/18 14:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 87.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Manganese	0.61		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Nickel	0.012	J	0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 16:07	1
Zinc	0.17	J F1 B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 16:07	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.19		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 21:23	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:27	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0086	J	0.017	0.0058	mg/Kg	☼	05/17/18 10:56	05/18/18 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.20	0.20	SU	-		05/15/18 16:53	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-4

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To _____ (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145183
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
E+E		1009341.0041.02								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Project Location/State		Lab Project #		SAMPLING						
176-001-W041		Marengo, IL				Date Time		# of Containers Matrix				
Sampler		Lab PM										
MF, 14		D. Wright										
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/ TCLP Metals	pH	Percent Solids	Comments
10		2956V-06-B05(0-2.5)	5/9/18	1233	5	S	X	X	X	X	X	
11		2956V-06-B04(0-3)	5/9/18	1255	5	S	X	X	X	X	X	
12		2956V-06-B03(0-5)	5/9/18	1402	5	S	X	X	X	X	X	
13		2956V-06-B02(0-4)	5/9/18	1415	5	S	X	X	X	X	X	
14		2956V-06-B02(4-8)	5/9/18	1417	5	S	X	X	X	X	X	
15		2956V-06-B01(0-4)	5/9/18	1422	5	S	X	X	X	X	X	
16		2956V-06-B01(4-8)	5/9/18	1425	5	S	X	X	X	X	X	

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client

Disposal by Lab

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <i>D. Wright</i> Company E+E	Date 5/9/18	Time 1530	Received By <i>P. Neal</i> Company TA	Date 5/9/18	Time 1530
Relinquished By <i>P. Neal</i> Company TA	Date 5/9/18	Time 1730	Received By <i>[Signature]</i> Company TA	Date 05/09/18	Time 1730

Lab Courier _____

Shipped _____

Hand Delivered _____

Matrix Key

WW - Wastewater SE - Sediment
W - Water SO - Soil
S - Soil L - Leachate
SL - Sludge WI - Wipe
MS - Miscellaneous DW - Drinking Water
OL - Oil O - Other
A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145183-4

Login Number: 145183

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.8)(5.3)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8200 block of S. Grant Highway (ISGS #3696-30)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20883 Longitude: -88.55585
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2956V-07-B01 and 2956V-07-B02 were sampled within the construction zone adjacent to ISGS #3696-30 (#2956V-7, Tributary to the South Branch of the Kishwaukee River). Refer to PSI Report for ISGS #3696-30 (#2956V-7, Tributary to the South Branch of the Kishwaukee River) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145183-3.


IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name: _____


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

1/27/2020
 Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-30 (Tributary to the South Branch of the Kishwaukee River [Creek])		Comparison Criteria					
	2956V-07-B01	2956V-07-B02	MACs			TACO		
BORING	2956V-07-B01	2956V-07-B02	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2956V-07-B01 (0-2)	2956V-07-B02 (0-3)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-2	0-3						
pH	7.6	7.9						
PID	--	--						
VOCs (mg/kg)								
2-Butanone (MEK)	0.0094	0.0095	--	--	--	--	--	--
Acetone	0.044	0.046	25	--	--	70,000	100,000	--
SVOCs (mg/kg)								
Acenaphthylene	0.0098 J	0.011 J	--	--	--	--	--	--
Anthracene	ND U	0.018 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.028 J	0.059	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.035 J	0.059	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.062	0.099	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	0.028 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.017 J	0.033 J	9	--	--	9	1,700	--
Chrysene	0.042 J	0.07	88	--	--	88	17,000	--
Fluoranthene	0.06	0.12	3,100	--	--	3,100	82,000	--
Fluorene	ND U	0.0091 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	0.026 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.031 J	0.068	--	--	--	--	--	--
Pyrene	0.055	0.097	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Antimony	0.32 J	ND U	5	--	--	31	82	--
Arsenic	4.3	5.2	11.3	13	--	13	61	--
Barium	62	44	1,500	--	--	5,500	14,000	--
Beryllium	0.37	0.32	22	--	--	160	410	--
Boron	6.5	6.5	40	--	--	16,000	41,000	--
Cadmium	0.44	0.71	5.2	--	--	78	200	--
Calcium	75,000	130,000	--	--	--	--	--	--
Chromium	16	13	21	--	--	230	690	--
Cobalt	5.4	5.2	20	--	--	4,700	12,000	--
Copper	17	24	2,900	--	--	2,900	8,200	--
Iron	15,000	37,000 †m	15,000	15,900	--	--	--	--
Lead	48	150 †	107	--	--	400	700	--
Magnesium	35,000	40,000	325,000	--	--	--	730,000	--
Manganese	390	310	630	636	--	1,600	4,100	--
Mercury	0.033	0.038	0.89	--	--	10	0.1	--
Nickel	13	14	100	--	--	1,600	4,100	--
Potassium	720	730	--	--	--	--	--	--
Selenium	0.81	ND U	1.3	--	--	390	1,000	--
Silver	0.15 J	0.18 J	4.4	--	--	390	1,000	--
Sodium	390	510	--	--	--	--	--	--
Vanadium	23	18	550	--	--	550	1,400	--
Zinc	100	150	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.43 J	0.53	--	--	--	--	--	2
Boron	0.085 J	0.07 J	--	--	--	--	--	2
Cadmium	0.0035 J	0.0029 J	--	--	--	--	--	0.005
Iron	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.79 L	1.8 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)								
Manganese	0.14	0.071	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145183-3
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/23/2018 4:19:31 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

5

6

7

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10



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Job ID: 500-145183-3

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-145183-3**

Receipt

The samples were received on 5/9/2018 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.8° C and 5.3° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

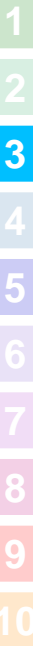
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B01 (0-2)

Lab Sample ID: 500-145183-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.044		0.026	0.011	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0094		0.0065	0.0029	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.0098	J	0.045	0.0060	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.031	J	0.045	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.060		0.045	0.0085	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.055		0.045	0.0091	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.028	J	0.045	0.0061	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.042	J	0.045	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.062		0.045	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.017	J	0.045	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.035	J	0.045	0.0088	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.32	J	1.3	0.26	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.3		0.67	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	62		0.67	0.076	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.37		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5	B	3.3	0.31	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.44	B	0.13	0.024	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000	B	67	11	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.67	0.33	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.4		0.33	0.087	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.67	0.19	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		13	6.9	mg/Kg	1	☼	6010B	Total/NA
Lead	48		0.33	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000	B	6.7	3.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.67	0.097	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.67	0.19	mg/Kg	1	☼	6010B	Total/NA
Potassium	720		33	12	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.81		0.67	0.39	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.33	0.086	mg/Kg	1	☼	6010B	Total/NA
Sodium	390		67	9.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.33	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	100		1.3	0.59	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.085	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0035	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.79		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.34	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.022	0.0072	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-07-B02 (0-3)

Lab Sample ID: 500-145183-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.046		0.031	0.014	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0095		0.0078	0.0034	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.011	J	0.044	0.0058	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0091	J	0.044	0.0062	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.068		0.044	0.0062	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.018	J	0.044	0.0074	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B02 (0-3) (Continued)

Lab Sample ID: 500-145183-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.12		0.044	0.0082	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.097		0.044	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.044	0.0060	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.070		0.044	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.099		0.044	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.033	J	0.044	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.059		0.044	0.0086	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.026	J	0.044	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.028	J	0.044	0.014	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.2		0.66	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.66	0.075	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5	B	3.3	0.31	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.71	B	0.13	0.024	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	130	22	mg/Kg	10	☼	6010B	Total/NA
Chromium	13		0.66	0.33	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.33	0.086	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.66	0.18	mg/Kg	1	☼	6010B	Total/NA
Iron	37000		13	6.8	mg/Kg	1	☼	6010B	Total/NA
Lead	150		0.33	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000	B	6.6	3.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	310		0.66	0.095	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.66	0.19	mg/Kg	1	☼	6010B	Total/NA
Potassium	730		33	12	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.33	0.085	mg/Kg	1	☼	6010B	Total/NA
Sodium	510		66	9.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.33	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	150		1.3	0.58	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.070	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.071		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.021	0.0069	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145183-8	2956V-07-B01 (0-2)	Solid	05/09/18 11:25	05/09/18 17:30
500-145183-9	2956V-07-B02 (0-3)	Solid	05/09/18 11:50	05/09/18 17:30

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B01 (0-2)

Lab Sample ID: 500-145183-8

Date Collected: 05/09/18 11:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 71.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.044		0.026	0.011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Benzene	<0.0026		0.0026	0.00066	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Bromodichloromethane	<0.0026		0.0026	0.00053	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Bromoform	<0.0026		0.0026	0.00076	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Bromomethane	<0.0065		0.0065	0.0025	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
2-Butanone (MEK)	0.0094		0.0065	0.0029	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Carbon disulfide	<0.0065		0.0065	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Carbon tetrachloride	<0.0026		0.0026	0.00076	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Chlorobenzene	<0.0026		0.0026	0.00096	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Chloroethane	<0.0065		0.0065	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Chloroform	<0.0026		0.0026	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Chloromethane	<0.0065		0.0065	0.0026	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
cis-1,2-Dichloroethene	<0.0026		0.0026	0.00073	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
cis-1,3-Dichloropropene	<0.0026		0.0026	0.00079	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Dibromochloromethane	<0.0026		0.0026	0.00085	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,1-Dichloroethane	<0.0026		0.0026	0.00089	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,2-Dichloroethane	<0.0065		0.0065	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,1-Dichloroethene	<0.0026		0.0026	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,2-Dichloropropane	<0.0026		0.0026	0.00067	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,3-Dichloropropane, Total	<0.0026		0.0026	0.00091	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Ethylbenzene	<0.0026		0.0026	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
2-Hexanone	<0.0065		0.0065	0.0020	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Methylene Chloride	<0.0065		0.0065	0.0026	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
4-Methyl-2-pentanone (MIBK)	<0.0065		0.0065	0.0019	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Methyl tert-butyl ether	<0.0026		0.0026	0.00076	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Styrene	<0.0026		0.0026	0.00079	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,1,2,2-Tetrachloroethane	<0.0026		0.0026	0.00083	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Tetrachloroethene	<0.0026		0.0026	0.00089	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Toluene	<0.0026		0.0026	0.00066	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
trans-1,2-Dichloroethene	<0.0026		0.0026	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
trans-1,3-Dichloropropene	<0.0026		0.0026	0.00091	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,1,1-Trichloroethane	<0.0026		0.0026	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
1,1,2-Trichloroethane	<0.0026		0.0026	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Trichloroethene	<0.0026		0.0026	0.00088	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Vinyl acetate	<0.0065		0.0065	0.0023	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Vinyl chloride	<0.0026		0.0026	0.0012	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1
Xylenes, Total	<0.0052		0.0052	0.00083	mg/Kg	☼	05/09/18 18:01	05/17/18 12:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/09/18 18:01	05/17/18 12:04	1
Dibromofluoromethane	85		75 - 126	05/09/18 18:01	05/17/18 12:04	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	05/09/18 18:01	05/17/18 12:04	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 12:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.23		0.23	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Bis(2-chloroethyl)ether	<0.23		0.23	0.068	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
1,3-Dichlorobenzene	<0.23		0.23	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
1,4-Dichlorobenzene	<0.23		0.23	0.059	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B01 (0-2)

Lab Sample ID: 500-145183-8

Date Collected: 05/09/18 11:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 71.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.23		0.23	0.055	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Methylphenol	<0.23		0.23	0.073	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,2'-oxybis[1-chloropropane]	<0.23		0.23	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
N-Nitrosodi-n-propylamine	<0.092		0.092	0.056	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Hexachloroethane	<0.23		0.23	0.069	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Chlorophenol	<0.23		0.23	0.078	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Nitrobenzene	<0.045		0.045	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Bis(2-chloroethoxy)methane	<0.23		0.23	0.047	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
1,2,4-Trichlorobenzene	<0.23		0.23	0.049	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Isophorone	<0.23		0.23	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4-Dimethylphenol	<0.45		0.45	0.17	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Hexachlorobutadiene	<0.23		0.23	0.072	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Naphthalene	<0.045		0.045	0.0070	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4-Dichlorophenol	<0.45		0.45	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Chloroaniline	<0.92		0.92	0.21	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4,6-Trichlorophenol	<0.45		0.45	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4,5-Trichlorophenol	<0.45		0.45	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Hexachlorocyclopentadiene	<0.92		0.92	0.26	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Methylnaphthalene	<0.092		0.092	0.0084	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Nitroaniline	<0.23		0.23	0.061	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Chloronaphthalene	<0.23		0.23	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Chloro-3-methylphenol	<0.45		0.45	0.16	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,6-Dinitrotoluene	<0.23		0.23	0.090	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2-Nitrophenol	<0.45		0.45	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
3-Nitroaniline	<0.45		0.45	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Dimethyl phthalate	<0.23		0.23	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4-Dinitrophenol	<0.92		0.92	0.80	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Acenaphthylene	0.0098	J	0.045	0.0060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
2,4-Dinitrotoluene	<0.23		0.23	0.073	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Acenaphthene	<0.045		0.045	0.0082	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Dibenzofuran	<0.23		0.23	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Nitrophenol	<0.92		0.92	0.43	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Fluorene	<0.045		0.045	0.0064	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Nitroaniline	<0.45		0.45	0.19	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Bromophenyl phenyl ether	<0.23		0.23	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Hexachlorobenzene	<0.092		0.092	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Diethyl phthalate	<0.23		0.23	0.077	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4-Chlorophenyl phenyl ether	<0.23		0.23	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Pentachlorophenol	<0.92		0.92	0.73	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
N-Nitrosodiphenylamine	<0.23		0.23	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
4,6-Dinitro-2-methylphenol	<0.92		0.92	0.37	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Phenanthrene	0.031	J	0.045	0.0064	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Anthracene	<0.045		0.045	0.0076	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Carbazole	<0.23		0.23	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Di-n-butyl phthalate	<0.23		0.23	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Fluoranthene	0.060		0.045	0.0085	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Pyrene	0.055		0.045	0.0091	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Butyl benzyl phthalate	<0.23		0.23	0.087	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Benzo[a]anthracene	0.028	J	0.045	0.0061	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B01 (0-2)

Lab Sample ID: 500-145183-8

Date Collected: 05/09/18 11:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 71.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.042	J	0.045	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
3,3'-Dichlorobenzidine	<0.23		0.23	0.064	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Bis(2-ethylhexyl) phthalate	<0.23		0.23	0.083	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Di-n-octyl phthalate	<0.23		0.23	0.075	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Benzo[b]fluoranthene	0.062		0.045	0.0099	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Benzo[k]fluoranthene	0.017	J	0.045	0.013	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Benzo[a]pyrene	0.035	J	0.045	0.0088	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Indeno[1,2,3-cd]pyrene	<0.045		0.045	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Dibenz(a,h)anthracene	<0.045		0.045	0.0088	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
Benzo[g,h,i]perylene	<0.045		0.045	0.015	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1
3 & 4 Methylphenol	<0.23		0.23	0.076	mg/Kg	☼	05/16/18 07:21	05/19/18 03:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	108		46 - 133	05/16/18 07:21	05/19/18 03:05	1
Phenol-d5	92		46 - 125	05/16/18 07:21	05/19/18 03:05	1
Nitrobenzene-d5	91		41 - 120	05/16/18 07:21	05/19/18 03:05	1
2-Fluorobiphenyl	101		44 - 121	05/16/18 07:21	05/19/18 03:05	1
2,4,6-Tribromophenol	93		25 - 139	05/16/18 07:21	05/19/18 03:05	1
Terphenyl-d14	110		35 - 160	05/16/18 07:21	05/19/18 03:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.3	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Arsenic	4.3		0.67	0.23	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Barium	62		0.67	0.076	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Beryllium	0.37		0.27	0.062	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Boron	6.5	B	3.3	0.31	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Cadmium	0.44	B	0.13	0.024	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Calcium	75000	B	67	11	mg/Kg	☼	05/11/18 17:01	05/16/18 04:20	5
Chromium	16		0.67	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Cobalt	5.4		0.33	0.087	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Copper	17		0.67	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Iron	15000		13	6.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Lead	48		0.33	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Magnesium	35000	B	6.7	3.3	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Manganese	390		0.67	0.097	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Nickel	13		0.67	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Potassium	720		33	12	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Selenium	0.81		0.67	0.39	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Silver	0.15	J	0.33	0.086	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Sodium	390		67	9.9	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Thallium	<0.67		0.67	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Vanadium	23		0.33	0.079	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1
Zinc	100		1.3	0.59	mg/Kg	☼	05/11/18 17:01	05/14/18 18:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.43	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:43	1
Boron	0.085	J	0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B01 (0-2)

Lab Sample ID: 500-145183-8

Date Collected: 05/09/18 11:25

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 71.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0035	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Manganese	0.79		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:43	1
Zinc	0.34	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:43	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:00	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.022	0.0072	mg/Kg	☼	05/17/18 10:56	05/18/18 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU	-		05/15/18 16:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B02 (0-3)

Lab Sample ID: 500-145183-9

Date Collected: 05/09/18 11:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 73.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.046		0.031	0.014	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Benzene	<0.0031		0.0031	0.00079	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Bromodichloromethane	<0.0031		0.0031	0.00063	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Bromoform	<0.0031		0.0031	0.00091	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Bromomethane	<0.0078		0.0078	0.0029	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
2-Butanone (MEK)	0.0095		0.0078	0.0034	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Carbon disulfide	<0.0078		0.0078	0.0016	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Carbon tetrachloride	<0.0031		0.0031	0.00090	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Chlorobenzene	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Chloroethane	<0.0078		0.0078	0.0023	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Chloroform	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Chloromethane	<0.0078		0.0078	0.0031	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
cis-1,2-Dichloroethene	<0.0031		0.0031	0.00087	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
cis-1,3-Dichloropropene	<0.0031		0.0031	0.00094	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Dibromochloromethane	<0.0031		0.0031	0.0010	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,1-Dichloroethane	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,2-Dichloroethane	<0.0078		0.0078	0.0024	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,1-Dichloroethene	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,2-Dichloropropane	<0.0031		0.0031	0.00080	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,3-Dichloropropane, Total	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Ethylbenzene	<0.0031		0.0031	0.0015	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
2-Hexanone	<0.0078		0.0078	0.0024	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Methylene Chloride	<0.0078		0.0078	0.0031	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
4-Methyl-2-pentanone (MIBK)	<0.0078		0.0078	0.0023	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Methyl tert-butyl ether	<0.0031		0.0031	0.00091	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Styrene	<0.0031		0.0031	0.00094	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,1,2,2-Tetrachloroethane	<0.0031		0.0031	0.00099	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Tetrachloroethene	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Toluene	<0.0031		0.0031	0.00078	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
trans-1,2-Dichloroethene	<0.0031		0.0031	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
trans-1,3-Dichloropropene	<0.0031		0.0031	0.0011	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,1,1-Trichloroethane	<0.0031		0.0031	0.0010	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
1,1,2-Trichloroethane	<0.0031		0.0031	0.0013	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Trichloroethene	<0.0031		0.0031	0.0010	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Vinyl acetate	<0.0078		0.0078	0.0027	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Vinyl chloride	<0.0031		0.0031	0.0014	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1
Xylenes, Total	<0.0062		0.0062	0.00099	mg/Kg	☼	05/09/18 18:01	05/17/18 12:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	05/09/18 18:01	05/17/18 12:30	1
Dibromofluoromethane	84		75 - 126	05/09/18 18:01	05/17/18 12:30	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/09/18 18:01	05/17/18 12:30	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 18:01	05/17/18 12:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.22		0.22	0.098	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Bis(2-chloroethyl)ether	<0.22		0.22	0.066	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
1,3-Dichlorobenzene	<0.22		0.22	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
1,4-Dichlorobenzene	<0.22		0.22	0.057	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B02 (0-3)

Lab Sample ID: 500-145183-9

Date Collected: 05/09/18 11:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 73.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.22		0.22	0.053	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Methylphenol	<0.22		0.22	0.071	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,2'-oxybis[1-chloropropane]	<0.22		0.22	0.051	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
N-Nitrosodi-n-propylamine	<0.089		0.089	0.054	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Hexachloroethane	<0.22		0.22	0.067	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Chlorophenol	<0.22		0.22	0.076	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Nitrobenzene	<0.044		0.044	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.045	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
1,2,4-Trichlorobenzene	<0.22		0.22	0.048	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Isophorone	<0.22		0.22	0.050	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4-Dimethylphenol	<0.44		0.44	0.17	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Hexachlorobutadiene	<0.22		0.22	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Naphthalene	<0.044		0.044	0.0068	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4-Dichlorophenol	<0.44		0.44	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Chloroaniline	<0.89		0.89	0.21	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4,6-Trichlorophenol	<0.44		0.44	0.15	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4,5-Trichlorophenol	<0.44		0.44	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Hexachlorocyclopentadiene	<0.89		0.89	0.25	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Methylnaphthalene	<0.089		0.089	0.0081	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Nitroaniline	<0.22		0.22	0.060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Chloronaphthalene	<0.22		0.22	0.049	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Chloro-3-methylphenol	<0.44		0.44	0.15	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,6-Dinitrotoluene	<0.22		0.22	0.087	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2-Nitrophenol	<0.44		0.44	0.10	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
3-Nitroaniline	<0.44		0.44	0.14	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Dimethyl phthalate	<0.22		0.22	0.058	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4-Dinitrophenol	<0.89		0.89	0.78	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Acenaphthylene	0.011	J	0.044	0.0058	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
2,4-Dinitrotoluene	<0.22		0.22	0.070	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Acenaphthene	<0.044		0.044	0.0080	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Dibenzofuran	<0.22		0.22	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Nitrophenol	<0.89		0.89	0.42	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Fluorene	0.0091	J	0.044	0.0062	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Nitroaniline	<0.44		0.44	0.19	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.058	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Hexachlorobenzene	<0.089		0.089	0.010	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Diethyl phthalate	<0.22		0.22	0.075	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Pentachlorophenol	<0.89		0.89	0.71	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
N-Nitrosodiphenylamine	<0.22		0.22	0.052	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
4,6-Dinitro-2-methylphenol	<0.89		0.89	0.36	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Phenanthrene	0.068		0.044	0.0062	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Anthracene	0.018	J	0.044	0.0074	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Carbazole	<0.22		0.22	0.11	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Di-n-butyl phthalate	<0.22		0.22	0.067	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Fluoranthene	0.12		0.044	0.0082	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Pyrene	0.097		0.044	0.0088	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Butyl benzyl phthalate	<0.22		0.22	0.084	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Benzo[a]anthracene	0.059		0.044	0.0060	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B02 (0-3)

Lab Sample ID: 500-145183-9

Date Collected: 05/09/18 11:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 73.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.070		0.044	0.012	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
3,3'-Dichlorobenzidine	<0.22		0.22	0.062	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.081	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Di-n-octyl phthalate	<0.22		0.22	0.072	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Benzo[b]fluoranthene	0.099		0.044	0.0096	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Benzo[k]fluoranthene	0.033 J		0.044	0.013	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Benzo[a]pyrene	0.059		0.044	0.0086	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Indeno[1,2,3-cd]pyrene	0.026 J		0.044	0.011	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Dibenz(a,h)anthracene	<0.044		0.044	0.0086	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
Benzo[g,h,i]perylene	0.028 J		0.044	0.014	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1
3 & 4 Methylphenol	<0.22		0.22	0.074	mg/Kg	☼	05/16/18 07:21	05/19/18 03:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	108		46 - 133	05/16/18 07:21	05/19/18 03:32	1
Phenol-d5	95		46 - 125	05/16/18 07:21	05/19/18 03:32	1
Nitrobenzene-d5	96		41 - 120	05/16/18 07:21	05/19/18 03:32	1
2-Fluorobiphenyl	100		44 - 121	05/16/18 07:21	05/19/18 03:32	1
2,4,6-Tribromophenol	94		25 - 139	05/16/18 07:21	05/19/18 03:32	1
Terphenyl-d14	107		35 - 160	05/16/18 07:21	05/19/18 03:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Arsenic	5.2		0.66	0.22	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Barium	44		0.66	0.075	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Beryllium	0.32		0.26	0.061	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Boron	6.5 B		3.3	0.31	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Cadmium	0.71 B		0.13	0.024	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Calcium	130000 B		130	22	mg/Kg	☼	05/11/18 17:01	05/16/18 04:24	10
Chromium	13		0.66	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Cobalt	5.2		0.33	0.086	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Copper	24		0.66	0.18	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Iron	37000		13	6.8	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Lead	150		0.33	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Magnesium	40000 B		6.6	3.3	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Manganese	310		0.66	0.095	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Nickel	14		0.66	0.19	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Potassium	730		33	12	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Selenium	<0.66		0.66	0.39	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Silver	0.18 J		0.33	0.085	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Sodium	510		66	9.7	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Thallium	<0.66		0.66	0.33	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Vanadium	18		0.33	0.078	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1
Zinc	150		1.3	0.58	mg/Kg	☼	05/11/18 17:01	05/14/18 18:32	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:36	05/16/18 15:47	1
Boron	0.070 J		0.50	0.050	mg/L		05/15/18 15:36	05/16/18 15:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Client Sample ID: 2956V-07-B02 (0-3)

Lab Sample ID: 500-145183-9

Date Collected: 05/09/18 11:50

Matrix: Solid

Date Received: 05/09/18 17:30

Percent Solids: 73.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Manganese	1.8		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:36	05/16/18 15:47	1
Zinc	0.21	J B	0.50	0.020	mg/L	-	05/15/18 15:36	05/16/18 15:47	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.071		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 20:47	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:36	05/21/18 12:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:36	05/21/18 12:10	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/16/18 13:15	05/17/18 18:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.021	0.0069	mg/Kg	☼	05/17/18 10:56	05/18/18 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/15/18 16:39	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145183-3

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To _____ (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145183
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
E+E		1009341.0041.02								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Comments		
176-001-W041A				Date Time		Matrix						
Project Location/State		Lab PM										
Marengo, IL		D. Wright										
Sampler												
MF, JH												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/TCLP Metals	pH	Percent Solids	Comments
8		2956V-07-B01(O-2)	5/9/18	1125	5	S	X	X	X	X	X	
9		2956V-07-B02(O-3)	5/9/18	1150	5	S	X	X	X	X	X	

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>V. Hughes</u> Company <u>E+E</u> Date <u>5/9/18</u> Time <u>1530</u>	Received By <u>P. Neal</u> Company <u>TA</u> Date <u>5/9/18</u> Time <u>1530</u>
Relinquished By <u>P. Neal</u> Company <u>TA</u> Date <u>5/9/18</u> Time <u>1730</u>	Received By <u>[Signature]</u> Company <u>TA</u> Date <u>05/09/18</u> Time <u>1730</u>
Relinquished By _____ Company _____ Date _____ Time _____	Received By _____ Company _____ Date _____ Time _____

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

Matrix Key

WW - Wastewater SE - Sediment
W - Water SO - Soil
S - Soil L - Leachate
SL - Sludge WI - Wipe
MS - Miscellaneous DW - Drinking Water
OL - Oil O - Other
A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145183-3

Login Number: 145183

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.8)(5.3)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8314 S. Grant Highway (ISGS #3696-31)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20811 Longitude: -88.55502
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations 2956V-08-B01 and 2956V-08-B02 were sampled within the construction zone adjacent to ISGS #3696-31 (#2956V-8, Residence). Refer to PSI Report for ISGS #3696-31 (#2956V-8, Residence) including Table 4-4, and Figure 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145367-1.

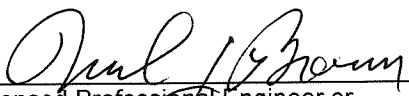
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

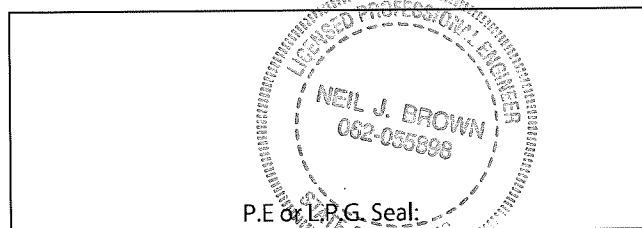
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-31 (Residence)		Comparison Criteria					
BORING	2956V-08-B01	2956V-08-B02	MACs			TACO		
SAMPLE	2956V-08-B01 (0-6)	2956V-08-B02 (0-5)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-6	0-5						
pH	8.6	8.7						
PID	--	--						
VOCs (mg/kg)								
Acetone	ND U	0.014 J	25	--	--	70,000	100,000	--
SVOCs (mg/kg)								
Acenaphthylene	0.0087 J	0.0068 J	--	--	--	--	--	--
Benzo(a)anthracene	0.025 J	0.033 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.037 J	0.041	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.052	0.045	0.9	2.1	1.5	2.1	170	--
Benzo(k)fluoranthene	0.013 J	0.017 J	9	--	--	9	1,700	--
Chrysene	0.032 J	0.037 J	88	--	--	88	17,000	--
Fluoranthene	0.043	0.047	3,100	--	--	3,100	82,000	--
Phenanthrene	0.0074 J	0.011 J	--	--	--	--	--	--
Pyrene	0.036 J	0.046	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)								
Antimony	0.32 J	ND U	5	--	--	31	82	--
Arsenic	3.6	2.5	11.3	13	--	13	61	--
Barium	34	38	1,500	--	--	5,500	14,000	--
Beryllium	0.46	0.5	22	--	--	160	410	--
Boron	5.5	6.2	40	--	--	16,000	41,000	--
Calcium	79,000	74,000	--	--	--	--	--	--
Chromium	10	12	21	--	--	230	690	--
Cobalt	5.1	5	20	--	--	4,700	12,000	--
Copper	13	14	2,900	--	--	2,900	8,200	--
Iron	10,000	10,000	15,000	15,900	--	--	--	--
Lead	22	18	107	--	--	400	700	--
Magnesium	31,000	31,000	325,000	--	--	--	730,000	--
Manganese	220	210	630	636	--	1,600	4,100	--
Mercury	0.024	0.016 J	0.89	--	--	10	0.1	--
Nickel	12	13	100	--	--	1,600	4,100	--
Potassium	930	1,100	--	--	--	--	--	--
Silver	0.11 J	0.12 J	4.4	--	--	390	1,000	--
Sodium	460	520	--	--	--	--	--	--
Vanadium	17	18	550	--	--	550	1,400	--
Zinc	38	31	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)								
Barium	0.37 J	0.36 J	--	--	--	--	--	2
Cadmium	0.0023 J	0.002 J	--	--	--	--	--	0.005
Manganese	0.011 J	0.086	--	--	--	--	--	0.15
SPLP Metals (Not Analyzed)								

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145367-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:19:31 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Job ID: 500-145367-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145367-1

Receipt

The samples were received on 5/11/2018 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2956V-08-B03 (0-2) (500-145367-1) and (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Selenium above the reporting limit (RL). The sample 2956V-08-B03 (0-2) (500-145367-1), 2956V-08-B02 (0-5) (500-145367-2) and 2956V-08-B01 (0-6) (500-145367-3) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

Method(s) 6010B: The method blank for preparation batch 500-432824 and analytical batch 500-433000 contained Zinc above the reporting limit (RL). Associated samples 2956V-08-B03 (0-2) (500-145367-1), 2956V-08-B02 (0-5) (500-145367-2) and 2956V-08-B01 (0-6) (500-145367-3) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

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Client Sample ID: 2956V-08-B02 (0-5)

Lab Sample ID: 500-145367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.014	J	0.017	0.0072	mg/Kg	1	*		8260B	Total/NA
Acenaphthylene	0.0068	J	0.038	0.0051	mg/Kg	1	*		8270D	Total/NA
Phenanthrene	0.011	J	0.038	0.0054	mg/Kg	1	*		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B02 (0-5) (Continued)

Lab Sample ID: 500-145367-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.047		0.038	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.046		0.038	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.033	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.037	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.045		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.017	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.041		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.5		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	6.2	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	74000	B	56	9.6	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.0		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	14	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	210	B	0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		28	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.12	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	520		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	31	B	1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.086		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.016	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-08-B01 (0-6)

Lab Sample ID: 500-145367-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0087	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0074	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.043		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.036	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.025	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.032	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.052		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.013	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.037	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.32	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.6		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	34		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.22	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	5.5	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B01 (0-6) (Continued)

Lab Sample ID: 500-145367-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.20	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	79000	B	54	9.1	mg/Kg	5	☼	6010B	Total/NA
Chromium	10		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.1		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	13	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	22		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	220	B	0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	930		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	460		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	38	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.088	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.024		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145367-2	2956V-08-B02 (0-5)	Solid	05/11/18 09:08	05/11/18 14:00
500-145367-3	2956V-08-B01 (0-6)	Solid	05/11/18 09:45	05/11/18 14:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B02 (0-5)

Lab Sample ID: 500-145367-2

Date Collected: 05/11/18 09:08

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.014	J	0.017	0.0072	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/11/18 17:49	05/19/18 19:16	1
Dibromofluoromethane	84		75 - 126	05/11/18 17:49	05/19/18 19:16	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/11/18 17:49	05/19/18 19:16	1
Toluene-d8 (Surr)	92		75 - 124	05/11/18 17:49	05/19/18 19:16	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B02 (0-5)

Lab Sample ID: 500-145367-2

Date Collected: 05/11/18 09:08

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Acenaphthylene	0.0068	J	0.038	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Phenanthrene	0.011	J	0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Fluoranthene	0.047		0.038	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Pyrene	0.046		0.038	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Benzo[a]anthracene	0.033	J	0.038	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B02 (0-5)

Lab Sample ID: 500-145367-2

Date Collected: 05/11/18 09:08

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.037	J	0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Benzo[b]fluoranthene	0.045		0.038	0.0083	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Benzo[k]fluoranthene	0.017	J	0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Benzo[a]pyrene	0.041		0.038	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	131		46 - 133	05/21/18 07:31	05/22/18 18:55	1
Phenol-d5	112		46 - 125	05/21/18 07:31	05/22/18 18:55	1
Nitrobenzene-d5	83		41 - 120	05/21/18 07:31	05/22/18 18:55	1
2-Fluorobiphenyl	91		44 - 121	05/21/18 07:31	05/22/18 18:55	1
2,4,6-Tribromophenol	103		25 - 139	05/21/18 07:31	05/22/18 18:55	1
Terphenyl-d14	106		35 - 160	05/21/18 07:31	05/22/18 18:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Arsenic	2.5		0.56	0.19	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Barium	38		0.56	0.064	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Beryllium	0.50		0.23	0.053	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Boron	6.2	B	2.8	0.26	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Cadmium	0.17	B	0.11	0.020	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Calcium	74000	B	56	9.6	mg/Kg	☼	05/17/18 16:19	05/19/18 02:51	5
Chromium	12		0.56	0.28	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Cobalt	5.0		0.28	0.074	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Copper	14	B	0.56	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Iron	10000		11	5.9	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Lead	18		0.28	0.13	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Magnesium	31000		5.6	2.8	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Manganese	210	B	0.56	0.082	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Nickel	13		0.56	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Potassium	1100		28	10	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Silver	0.12	J	0.28	0.073	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Sodium	520		56	8.3	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Vanadium	18		0.28	0.067	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1
Zinc	31	B	1.1	0.50	mg/Kg	☼	05/17/18 16:19	05/18/18 12:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:45	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B02 (0-5)

Lab Sample ID: 500-145367-2

Date Collected: 05/11/18 09:08

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Iron	<0.40		0.40	0.20	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Manganese	0.086		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Silver	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:45	1
Zinc	0.048	J B	0.50	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:45	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/18/18 14:23	05/21/18 15:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/18/18 14:23	05/21/18 15:40	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/21/18 14:15	05/23/18 23:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0059	mg/Kg	☼	05/23/18 09:12	05/24/18 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.20	0.20	SU	-		05/18/18 16:21	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B01 (0-6)

Lab Sample ID: 500-145367-3

Date Collected: 05/11/18 09:45

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Benzene	<0.0017		0.0017	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Bromodichloromethane	<0.0017		0.0017	0.00036	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Carbon tetrachloride	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Chlorobenzene	<0.0017		0.0017	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Chloroform	<0.0017		0.0017	0.00061	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Ethylbenzene	<0.0017		0.0017	0.00084	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Tetrachloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/11/18 17:49	05/19/18 19:43	1
Dibromofluoromethane	85		75 - 126	05/11/18 17:49	05/19/18 19:43	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/11/18 17:49	05/19/18 19:43	1
Toluene-d8 (Surr)	91		75 - 124	05/11/18 17:49	05/19/18 19:43	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B01 (0-6)

Lab Sample ID: 500-145367-3

Date Collected: 05/11/18 09:45

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Acenaphthylene	0.0087	J	0.038	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Phenanthrene	0.0074	J	0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Fluoranthene	0.043		0.038	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Pyrene	0.036	J	0.038	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Benzo[a]anthracene	0.025	J	0.038	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B01 (0-6)

Lab Sample ID: 500-145367-3

Date Collected: 05/11/18 09:45

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.032	J	0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Benzo[b]fluoranthene	0.052		0.038	0.0083	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Benzo[k]fluoranthene	0.013	J	0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Benzo[a]pyrene	0.037	J	0.038	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	121		46 - 133	05/21/18 07:31	05/22/18 19:22	1
Phenol-d5	101		46 - 125	05/21/18 07:31	05/22/18 19:22	1
Nitrobenzene-d5	84		41 - 120	05/21/18 07:31	05/22/18 19:22	1
2-Fluorobiphenyl	85		44 - 121	05/21/18 07:31	05/22/18 19:22	1
2,4,6-Tribromophenol	100		25 - 139	05/21/18 07:31	05/22/18 19:22	1
Terphenyl-d14	101		35 - 160	05/21/18 07:31	05/22/18 19:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.1	0.21	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Arsenic	3.6		0.54	0.18	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Barium	34		0.54	0.062	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Beryllium	0.46		0.22	0.050	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Boron	5.5	B	2.7	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Cadmium	0.20	B	0.11	0.019	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Calcium	79000	B	54	9.1	mg/Kg	☼	05/17/18 16:19	05/19/18 02:55	5
Chromium	10		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Cobalt	5.1		0.27	0.071	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Copper	13	B	0.54	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Iron	10000		11	5.6	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Lead	22		0.27	0.12	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Magnesium	31000		5.4	2.7	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Manganese	220	B	0.54	0.078	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Nickel	12		0.54	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Potassium	930		27	9.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Silver	0.11	J	0.27	0.070	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Sodium	460		54	8.0	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Vanadium	17		0.27	0.064	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1
Zinc	38	B	1.1	0.47	mg/Kg	☼	05/17/18 16:19	05/18/18 12:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:49	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Client Sample ID: 2956V-08-B01 (0-6)

Lab Sample ID: 500-145367-3

Date Collected: 05/11/18 09:45

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 85.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0023	J	0.0050	0.0020	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Iron	<0.40		0.40	0.20	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Manganese	0.011	J	0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Silver	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 14:49	1
Zinc	0.088	J B	0.50	0.020	mg/L	-	05/18/18 14:23	05/21/18 14:49	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/18/18 14:23	05/21/18 15:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/18/18 14:23	05/21/18 15:43	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/21/18 14:15	05/23/18 23:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.017	0.0058	mg/Kg	☆	05/23/18 09:12	05/24/18 12:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.20	0.20	SU	-		05/18/18 16:24	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL T

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.52



500-145367 COC

Report To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145367
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 3.7

Client		Client Project #		Preservative		Parameter										Preservative Key	
EIE		1009341.0041.02														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #															
176-001-W041A																	
Project Location/State		Lab PM															
Marengo, IL		R. Wright															
Sampler																	
MF, JH																	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	SVOC	Total/TCMP Metals	pH	Percent Solids					Comments	
			Date	Time													
1		2956V-08-BOX(0-2) ^{3 JH}	5/11/18	0850	5	S	X	X	X	X	X						
2		2956V-08-BOX(0-5)	5/11/18	0908	5	S	X	X	X	X	X						
3		2956V-08-BOX(0-6)	5/11/18	0945	5	S	X	X	X	X	X						

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u>	Company: <u>EIE</u>	Date: <u>5/11/18</u>	Time: <u>1310</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5-11-18</u>	Time: <u>1310</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>5-11-18</u>	Time: <u>1400</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CHI</u>	Date: <u>5/11/18</u>	Time: <u>1400</u>

Lab Courier: TA
Shipped: _____
Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

 Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145367-1

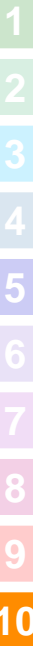
Login Number: 145367

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8300 block of S. Grant Highway (ISGS #3696-32)

City: Coral State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20738 Longitude: -88.55451
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-01-B02 through 2273V-01-B04 and 2956V-09-B01 through 2956V-09-B04 were sampled within the construction zone adjacent to ISGS #3696-32 (#2273V-1, #2956V-9, Vacant Land). Refer to PSI Report for ISGS #3696-32 (#2273V-1, #2956V-9, Vacant Land) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages J145298-1 and J145298-3.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

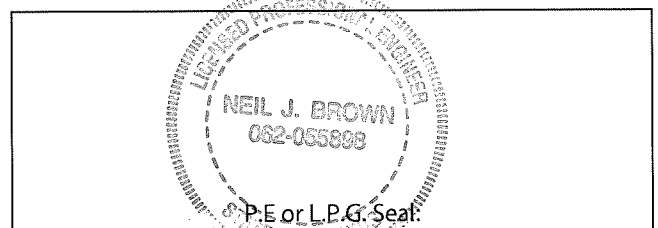
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name:

Neil J. Brown
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

1/27/2020
 Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #3696-32 (Vacant Land)							Comparison Criteria					
	2273V-01-B02	2273V-01-B03	2273V-01-B04	2956V-09-B01	2956V-09-B02	2956V-09-B03	2956V-09-B04	MACs			TACO		
SAMPLE	2273V-01-B02 (0-3)	2273V-01-B03 (0-3)	2273V-01-B04 (0-3)	2956V-09-B01 (0-4)	2956V-09-B02 (0-4)	2956V-09-B03 (0-4)	2956V-09-B04 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-3	0-3	0-3	0-4	0-4	0-4	0-4						
pH	7.7	8.1	8.2	8.5	8	7.4	7.8						
PID	--	--	--	--	--	--	--						
VOCs (None Detected)													
SVOCs (mg/kg)													
Benzo(a)anthracene	ND U	ND U	ND U	ND U	0.0065 J	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	ND U	ND U	ND U	ND U	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	ND U	ND U	ND U	ND U	ND U	ND U	0.9	2.1	1.5	2.1	170	--
Carbazole	ND U	ND U	ND U	ND U	ND U	ND U	0.11 J	0.6	--	--	32	6,200	--
Fluoranthene	ND U	ND U	ND U	ND U	ND U	ND U	0.0079 J	3,100	--	--	3,100	82,000	--
Phenanthrene	ND U	ND U	ND U	ND U	ND U	ND U	0.0063 J	--	--	--	--	--	--
Pyrene	ND U	ND U	ND U	ND U	0.0092 J	ND U	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)													
Arsenic	2.4	4.2	3.7 J	3.7	4.1	3.6	2.6	11.3	13	--	13	61	--
Barium	41	74	69	90	86	39	52	1,500	--	--	5,500	14,000	--
Beryllium	0.34	0.6	0.61	0.84	0.7	0.46	0.38	22	--	--	160	410	--
Boron	ND U	2.6 J	4.9 J	7.1	4.7	2.8	3	40	--	--	16,000	41,000	--
Calcium	1,500	2,300	46,000 J	11,000	2,200	1,300	2,600	--	--	--	--	--	--
Chromium	11	18	17 J	23 †	21	15	12	21	--	--	230	690	--
Cobalt	4.3	7.8	10 J	11	9.3	7.4	5.4	20	--	--	4,700	12,000	--
Copper	6.5	9.7	12	18	14	8.6	9.4	2,900	--	--	2,900	8,200	--
Iron	9,300	18,000 †m	16,000 †m	20,000 †m	19,000 †m	15,000	11,000	15,000	15,900	--	--	--	--
Lead	8.2	9.2	8.4 J	9.7	10	7.5	12	107	--	--	400	700	--
Magnesium	1,300	2,600	14,000	9,100	3,500	2,500	2,200	325,000	--	--	--	730,000	--
Manganese	240	350	420 J	340	330	340	290	630	636	--	1,600	4,100	--
Mercury	0.026	0.035	0.03	0.026	0.026	0.026	0.02	0.89	--	--	10	0.1	--
Nickel	8.6	15	17	26	20	19	10	100	--	--	1,600	4,100	--
Potassium	490	770	1,100 J	1,600	1,300	730	840	--	--	--	--	--	--
Selenium	ND U	ND U	0.37 J	0.37 J	ND U	ND U	ND U	1.3	--	--	390	1,000	--
Silver	0.16 J	0.33	0.22 J	0.39	0.3 J	0.26 J	0.19 J	4.4	--	--	390	1,000	--
Sodium	310	490	380	500	610	280	220	--	--	--	--	--	--
Thallium	ND U	ND U	ND U	ND U	0.33 J	0.28 J	ND U	2.6	--	--	6.3	160	--
Vanadium	21	39	31 J	34	36	27	21	550	--	--	550	1,400	--
Zinc	20	33	31	40	40	34	32	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)													
Barium	0.22 J	0.27 J	0.53	0.63	0.28 J	0.18 J	0.2 J	--	--	--	--	--	2
Boron	0.059 J	0.053 J	ND U	ND U	ND U	ND U	0.065 J	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.005
Iron	2.3	0.54	ND U	ND U	0.44	0.48	1.2	--	--	--	--	--	5
Manganese	0.12	0.067	0.11	0.36 L	0.034	0.036	0.054	--	--	--	--	--	0.15
Zinc	ND U	0.088 J	ND U	0.06 J	ND U	0.086 J	0.024 J	--	--	--	--	--	5
SPLP Metals (mg/L)													
Manganese	NA	NA	NA	0.42 L	NA	NA	NA	--	--	--	--	--	0.15

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-145298-1
Client Project/Site: IDOT - 176-001-WO041
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
7/19/2019 2:56:09 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com
Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Job ID: 500-145298-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-145298-1

Revised Report

Revision added to correct the client id prefix from 2956V to 2273V for samples 1 thru 12 per chains of custody.

Receipt

The samples were received on 5/10/2018 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.3° C and 4.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2956V-01-B04 (0-3) (500-145298-1), 2956V-01-B02 (0-3) (500-145298-3), and (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Two acid surrogate recoveries for the following sample were outside the upper control limit: 2956V-01-B03 (0-3) (500-145298-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one analyte: Hexachlorocyclopentadiene. Data has been qualified and reported. (500-145298-E-1-M MS) and (500-145298-E-1-N MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-431918 and analytical batch 500-432522 contained Zinc above the reporting limit (RL). Associated samples 2956V-01-B04 (0-3) (500-145298-1), 2956V-01-B03 (0-3) (500-145298-2), 2956V-01-B02 (0-3) (500-145298-3), and 2956V-01-B01 (0-6) (500-145298-4) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.7	F1	0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	4.9	F1 B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	46000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	17	F1	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	8.4	F1	0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	F2 B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	17		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100	F1	28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J F1	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.22	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	380		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	31	F1	0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	31	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.030		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	74		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	2.6	J B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	2300	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.8		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	9.7		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	9.2		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2600		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	350	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	770		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.33		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	490		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	39		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	33	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.053	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.54		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.067		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3) (Continued)

Lab Sample ID: 500-145298-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.088	J	0.50	0.020	mg/L	1	☼	6010B	TCLP
Mercury	0.035		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.4		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	41		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.34		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	2.2	J B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	1500	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	6.5		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9300	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	8.2		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1300		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	240	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.6		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	490		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.16	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	20	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	2.3		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.026		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-145298-1	2273V-01-B04 (0-3)	Solid	05/10/18 14:15	05/10/18 18:00	
500-145298-2	2273V-01-B03 (0-3)	Solid	05/10/18 14:18	05/10/18 18:00	
500-145298-3	2273V-01-B02 (0-3)	Solid	05/10/18 14:22	05/10/18 18:00	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/11/18 07:40	05/17/18 17:21	1
Dibromofluoromethane	84		75 - 126	05/11/18 07:40	05/17/18 17:21	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/11/18 07:40	05/17/18 17:21	1
Toluene-d8 (Surr)	92		75 - 124	05/11/18 07:40	05/17/18 17:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Bis(2-chloroethyl)ether	<0.19	F1 F2	0.19	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19	F1	0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Hexachloroethane	<0.19	F1	0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Naphthalene	<0.038	F1	0.038	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Hexachlorocyclopentadiene	<0.77	F1	0.77	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Methylnaphthalene	<0.077	F1	0.077	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4-Dinitrophenol	<0.77	F2	0.77	0.67	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Dibenzofuran	<0.19	F1	0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
N-Nitrosodiphenylamine	<0.19	F1	0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Benzof[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Dibenz(a,h)anthracene	<0.038	F2	0.038	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
Benzo[g,h,i]perylene	<0.038	F2	0.038	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		46 - 133	05/21/18 07:31	05/22/18 12:12	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 12:12	1
Nitrobenzene-d5	61		41 - 120	05/21/18 07:31	05/22/18 12:12	1
2-Fluorobiphenyl	71		44 - 121	05/21/18 07:31	05/22/18 12:12	1
2,4,6-Tribromophenol	140	X	25 - 139	05/21/18 07:31	05/22/18 12:12	1
Terphenyl-d14	88		35 - 160	05/21/18 07:31	05/22/18 12:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Arsenic	3.7	F1	0.56	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Barium	69		0.56	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Beryllium	0.61		0.22	0.052	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Boron	4.9	F1 B	2.8	0.26	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Cadmium	0.14	B	0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Calcium	46000	B	110	19	mg/Kg	☼	05/11/18 17:09	05/16/18 20:38	10
Chromium	17	F1	0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Cobalt	10		0.28	0.073	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Copper	12		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Iron	16000	B	11	5.8	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Lead	8.4	F1	0.28	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Magnesium	14000		5.6	2.8	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Manganese	420	F2 B	0.56	0.081	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Nickel	17		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Potassium	1100	F1	28	9.9	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Selenium	0.37	J F1	0.56	0.33	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Silver	0.22	J	0.28	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Sodium	380		56	8.3	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Vanadium	31	F1	0.28	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1
Zinc	31	B	1.1	0.49	mg/Kg	☼	05/11/18 17:09	05/16/18 01:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 00:48	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:48	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 00:48	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:48	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:48	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 00:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 00:48	1
Manganese	0.11		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:48	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:48	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 00:48	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:48	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 00:48	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:31	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.018	0.0061	mg/Kg	✱	05/22/18 15:55	05/24/18 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/17/18 15:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0088	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Carbon disulfide	<0.0050		0.0050	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Vinyl acetate	<0.0050		0.0050	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1
Xylenes, Total	<0.0040		0.0040	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	05/11/18 07:40	05/17/18 17:48	1
Dibromofluoromethane	81		75 - 126	05/11/18 07:40	05/17/18 17:48	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/11/18 07:40	05/17/18 17:48	1
Toluene-d8 (Surr)	92		75 - 124	05/11/18 07:40	05/17/18 17:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Benzof[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	160	X	46 - 133	05/21/18 07:31	05/22/18 12:38	1
Phenol-d5	147	X	46 - 125	05/21/18 07:31	05/22/18 12:38	1
Nitrobenzene-d5	72		41 - 120	05/21/18 07:31	05/22/18 12:38	1
2-Fluorobiphenyl	78		44 - 121	05/21/18 07:31	05/22/18 12:38	1
2,4,6-Tribromophenol	121		25 - 139	05/21/18 07:31	05/22/18 12:38	1
Terphenyl-d14	109		35 - 160	05/21/18 07:31	05/22/18 12:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Arsenic	4.2		0.58	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Barium	74		0.58	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Beryllium	0.60		0.23	0.054	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Boron	2.6	J B	2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Cadmium	0.17	B	0.12	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Calcium	2300	B	12	2.0	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Chromium	18		0.58	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Cobalt	7.8		0.29	0.076	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Copper	9.7		0.58	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Iron	18000	B	12	6.1	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Lead	9.2		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Magnesium	2600		5.8	2.9	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Manganese	350	B	0.58	0.084	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Nickel	15		0.58	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Potassium	770		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Silver	0.33		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Sodium	490		58	8.6	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Vanadium	39		0.29	0.069	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1
Zinc	33	B	1.2	0.51	mg/Kg	☼	05/11/18 17:09	05/16/18 01:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 00:52	1
Boron	0.053	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:52	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 00:52	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:52	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:52	1
Iron	0.54		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 00:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 00:52	1
Manganese	0.067		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:52	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:52	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 00:52	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:52	1
Zinc	0.088	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 00:52	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:34	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.020	0.0065	mg/Kg	☼	05/22/18 15:55	05/24/18 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.20	0.20	SU			05/17/18 15:25	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/11/18 07:40	05/17/18 18:14	1
Dibromofluoromethane	82		75 - 126	05/11/18 07:40	05/17/18 18:14	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	05/11/18 07:40	05/17/18 18:14	1
Toluene-d8 (Surr)	90		75 - 124	05/11/18 07:40	05/17/18 18:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Benzof[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	136	X	46 - 133	05/21/18 07:31	05/22/18 13:05	1
Phenol-d5	119		46 - 125	05/21/18 07:31	05/22/18 13:05	1
Nitrobenzene-d5	94		41 - 120	05/21/18 07:31	05/22/18 13:05	1
2-Fluorobiphenyl	69		44 - 121	05/21/18 07:31	05/22/18 13:05	1
2,4,6-Tribromophenol	107		25 - 139	05/21/18 07:31	05/22/18 13:05	1
Terphenyl-d14	104		35 - 160	05/21/18 07:31	05/22/18 13:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Arsenic	2.4		0.56	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Barium	41		0.56	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Beryllium	0.34		0.22	0.052	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Boron	2.2	J B	2.8	0.26	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Cadmium	0.13	B	0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Calcium	1500	B	11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Chromium	11		0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Cobalt	4.3		0.28	0.073	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Copper	6.5		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Iron	9300	B	11	5.8	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Lead	8.2		0.28	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Magnesium	1300		5.6	2.8	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Manganese	240	B	0.56	0.081	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Nickel	8.6		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Potassium	490		28	9.9	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Silver	0.16	J	0.28	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Sodium	310		56	8.3	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Vanadium	21		0.28	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1
Zinc	20	B	1.1	0.49	mg/Kg	☼	05/11/18 17:09	05/16/18 01:47	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 00:56	1
Boron	0.059	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:56	1

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 00:56	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:56	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:56	1
Iron	2.3		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 00:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 00:56	1
Manganese	0.12		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:56	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:56	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 00:56	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:56	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 00:56	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:38	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:38	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0062	mg/Kg	✱	05/22/18 15:55	05/24/18 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU			05/17/18 15:27	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

GC/MS VOA

Prep Batch: 432680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	5035	
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	5035	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	5035	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	5035	

Analysis Batch: 432712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	8260B	432680
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	8260B	432680
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	8260B	432680
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	8260B	432680
MB 500-432712/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-432712/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432712/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 433188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	3541	
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	3541	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	3541	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	3541	
MB 500-433188/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-433188/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-145298-1 MS	2273V-01-B04 (0-3)	Total/NA	Solid	3541	
500-145298-1 MSD	2273V-01-B04 (0-3)	Total/NA	Solid	3541	

Analysis Batch: 433360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-433188/1-A	Method Blank	Total/NA	Solid	8270D	433188
LCS 500-433188/2-A	Lab Control Sample	Total/NA	Solid	8270D	433188

Analysis Batch: 433370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	8270D	433188
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	8270D	433188
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	8270D	433188
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	8270D	433188
500-145298-1 MS	2273V-01-B04 (0-3)	Total/NA	Solid	8270D	433188
500-145298-1 MSD	2273V-01-B04 (0-3)	Total/NA	Solid	8270D	433188

Metals

Prep Batch: 431918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	3050B	
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	3050B	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	3050B	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	3050B	
MB 500-431918/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Metals (Continued)

Prep Batch: 431918 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1 MS	2273V-01-B04 (0-3)	Total/NA	Solid	3050B	
500-145298-1 MSD	2273V-01-B04 (0-3)	Total/NA	Solid	3050B	
500-145298-1 DU	2273V-01-B04 (0-3)	Total/NA	Solid	3050B	

Leach Batch: 432144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-4	2273V-01-B01 (0-6)	SPLP East	Solid	1312	
LB 500-432144/1-D	Method Blank	SPLP East	Solid	1312	

Leach Batch: 432149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	1311	
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	1311	
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	1311	
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	1311	
LB 500-432149/1-B	Method Blank	TCLP	Solid	1311	
LB 500-432149/1-D	Method Blank	TCLP	Solid	1311	

Prep Batch: 432389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-4	2273V-01-B01 (0-6)	SPLP East	Solid	3010A	432144
LB 500-432144/1-D	Method Blank	SPLP East	Solid	3010A	432144
LCS 500-432389/2-B	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 432394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	3010A	432149
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	3010A	432149
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	3010A	432149
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	3010A	432149
LB 500-432149/1-B	Method Blank	TCLP	Solid	3010A	432149
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 432522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	6010B	431918
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	6010B	431918
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	6010B	431918
MB 500-431918/1-A	Method Blank	Total/NA	Solid	6010B	431918
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	6010B	431918
500-145298-1 MS	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918
500-145298-1 MSD	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918
500-145298-1 DU	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918

Analysis Batch: 432693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918
MB 500-431918/1-A	Method Blank	Total/NA	Solid	6010B	431918
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	6010B	431918
500-145298-1 MS	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Metals (Continued)

Analysis Batch: 432693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1 MSD	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918
500-145298-1 DU	2273V-01-B04 (0-3)	Total/NA	Solid	6010B	431918

Analysis Batch: 432694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	6010B	432394
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	6010B	432394
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	6010B	432394
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	6010B	432394
LB 500-432149/1-B	Method Blank	TCLP	Solid	6010B	432394
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	6010B	432394

Analysis Batch: 433204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-4	2273V-01-B01 (0-6)	SPLP East	Solid	6010B	432389
LB 500-432144/1-D	Method Blank	SPLP East	Solid	6010B	432389
LCS 500-432389/2-B	Lab Control Sample	Total/NA	Solid	6010B	432389

Analysis Batch: 433392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	6020A	432394
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	6020A	432394
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	6020A	432394
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	6020A	432394
LB 500-432149/1-B	Method Blank	TCLP	Solid	6020A	432394
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	6020A	432394

Prep Batch: 433400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	7471B	
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	7471B	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	7471B	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	7471B	
MB 500-433400/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-433400/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 433740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	7470A	432149
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	7470A	432149
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	7470A	432149
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	7470A	432149
LB 500-432149/1-D	Method Blank	TCLP	Solid	7470A	432149
MB 500-433740/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-433740/13-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 433784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	TCLP	Solid	7470A	433740
500-145298-2	2273V-01-B03 (0-3)	TCLP	Solid	7470A	433740
500-145298-3	2273V-01-B02 (0-3)	TCLP	Solid	7470A	433740

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Metals (Continued)

Analysis Batch: 433784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-4	2273V-01-B01 (0-6)	TCLP	Solid	7470A	433740
LB 500-432149/1-D	Method Blank	TCLP	Solid	7470A	433740
MB 500-433740/12-A	Method Blank	Total/NA	Solid	7470A	433740
LCS 500-433740/13-A	Lab Control Sample	Total/NA	Solid	7470A	433740

Analysis Batch: 433853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	7471B	433400
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	7471B	433400
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	7471B	433400
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	7471B	433400
MB 500-433400/12-A	Method Blank	Total/NA	Solid	7471B	433400
LCS 500-433400/13-A	Lab Control Sample	Total/NA	Solid	7471B	433400

General Chemistry

Analysis Batch: 431875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	Moisture	

Analysis Batch: 431889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	Moisture	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	Moisture	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	Moisture	

Analysis Batch: 432929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-1	2273V-01-B04 (0-3)	Total/NA	Solid	9045D	
500-145298-2	2273V-01-B03 (0-3)	Total/NA	Solid	9045D	
500-145298-3	2273V-01-B02 (0-3)	Total/NA	Solid	9045D	
500-145298-4	2273V-01-B01 (0-6)	Total/NA	Solid	9045D	
500-145298-1 DU	2273V-01-B04 (0-3)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-145298-1	2273V-01-B04 (0-3)	100	84	85	92
500-145298-2	2273V-01-B03 (0-3)	103	81	84	92
500-145298-3	2273V-01-B02 (0-3)	101	82	82	90
500-145298-4	2273V-01-B01 (0-6)	103	83	83	93
LCS 500-432712/3	Lab Control Sample	92	82	77	95
LCSD 500-432712/4	Lab Control Sample Dup	94	81	78	94
MB 500-432712/5	Method Blank	100	82	79	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(46-133)	(46-125)	(41-120)	(44-121)	(25-139)	(35-160)
500-145298-1	2273V-01-B04 (0-3)	110	99	61	71	140 X	88
500-145298-1 MS	2273V-01-B04 (0-3)	97	81	68	68	92	86
500-145298-1 MSD	2273V-01-B04 (0-3)	100	86	60	68	87	90
500-145298-2	2273V-01-B03 (0-3)	160 X	147 X	72	78	121	109
500-145298-3	2273V-01-B02 (0-3)	136 X	119	94	69	107	104
500-145298-4	2273V-01-B01 (0-6)	117	65	83	81	118	72
LCS 500-433188/2-A	Lab Control Sample	111	100	95	102	102	122
MB 500-433188/1-A	Method Blank	112	99	88	142 X	108	114

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432712/5
Matrix: Solid
Analysis Batch: 432712

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			05/17/18 10:46	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 10:46	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/17/18 10:46	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 10:46	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/17/18 10:46	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/17/18 10:46	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/17/18 10:46	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 10:46	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/17/18 10:46	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 10:46	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 10:46	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/17/18 10:46	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 10:46	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/17/18 10:46	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 10:46	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/17/18 10:46	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 10:46	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/17/18 10:46	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 10:46	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 10:46	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 10:46	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/17/18 10:46	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 10:46	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/17/18 10:46	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 10:46	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 10:46	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 10:46	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 10:46	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/17/18 10:46	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/17/18 10:46	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 10:46	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/17/18 10:46	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 10:46	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/17/18 10:46	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		75 - 131		05/17/18 10:46	1
Dibromofluoromethane	82		75 - 126		05/17/18 10:46	1
1,2-Dichloroethane-d4 (Surr)	79		70 - 134		05/17/18 10:46	1
Toluene-d8 (Surr)	92		75 - 124		05/17/18 10:46	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432712/3

Matrix: Solid

Analysis Batch: 432712

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0489		mg/Kg		98	40 - 150
Benzene	0.0500	0.0454		mg/Kg		91	70 - 125
Bromodichloromethane	0.0500	0.0454		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0517		mg/Kg		103	68 - 136
Bromomethane	0.0500	0.0419		mg/Kg		84	70 - 130
2-Butanone (MEK)	0.0500	0.0374		mg/Kg		75	47 - 138
Carbon disulfide	0.0500	0.0462		mg/Kg		92	70 - 129
Carbon tetrachloride	0.0500	0.0495		mg/Kg		99	75 - 125
Chlorobenzene	0.0500	0.0500		mg/Kg		100	50 - 150
Chloroethane	0.0500	0.0530		mg/Kg		106	75 - 125
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0513		mg/Kg		103	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0456		mg/Kg		91	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0509		mg/Kg		102	70 - 125
Dibromochloromethane	0.0500	0.0519		mg/Kg		104	69 - 125
1,1-Dichloroethane	0.0500	0.0466		mg/Kg		93	70 - 125
1,2-Dichloroethane	0.0500	0.0454		mg/Kg		91	70 - 130
1,1-Dichloroethene	0.0500	0.0451		mg/Kg		90	70 - 120
1,2-Dichloropropane	0.0500	0.0455		mg/Kg		91	70 - 125
Ethylbenzene	0.0500	0.0506		mg/Kg		101	61 - 136
2-Hexanone	0.0500	0.0474		mg/Kg		95	48 - 146
Methylene Chloride	0.0500	0.0438		mg/Kg		88	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0466		mg/Kg		93	50 - 148
Methyl tert-butyl ether	0.0500	0.0473		mg/Kg		95	50 - 140
Styrene	0.0500	0.0518		mg/Kg		104	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0497		mg/Kg		99	70 - 122
Tetrachloroethene	0.0500	0.0518		mg/Kg		104	70 - 124
Toluene	0.0500	0.0510		mg/Kg		102	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0505		mg/Kg		101	70 - 125
1,1,1-Trichloroethane	0.0500	0.0481		mg/Kg		96	70 - 128
1,1,2-Trichloroethane	0.0500	0.0493		mg/Kg		99	70 - 125
Trichloroethene	0.0500	0.0456		mg/Kg		91	70 - 125
Vinyl acetate	0.0500	0.0313		mg/Kg		63	40 - 153
Vinyl chloride	0.0500	0.0505		mg/Kg		101	70 - 125
Xylenes, Total	0.100	0.102		mg/Kg		102	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	82		75 - 126
1,2-Dichloroethane-d4 (Surr)	77		70 - 134
Toluene-d8 (Surr)	95		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432712/4
Matrix: Solid
Analysis Batch: 432712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0495		mg/Kg		99	40 - 150	1	30
Benzene	0.0500	0.0432		mg/Kg		86	70 - 125	5	30
Bromodichloromethane	0.0500	0.0430		mg/Kg		86	67 - 129	5	30
Bromoform	0.0500	0.0484		mg/Kg		97	68 - 136	7	30
Bromomethane	0.0500	0.0431		mg/Kg		86	70 - 130	3	30
2-Butanone (MEK)	0.0500	0.0387		mg/Kg		77	47 - 138	3	30
Carbon disulfide	0.0500	0.0434		mg/Kg		87	70 - 129	6	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	6	30
Chlorobenzene	0.0500	0.0461		mg/Kg		92	50 - 150	8	30
Chloroethane	0.0500	0.0554		mg/Kg		111	75 - 125	4	30
Chloroform	0.0500	0.0430		mg/Kg		86	57 - 135	5	30
Chloromethane	0.0500	0.0528		mg/Kg		106	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0437		mg/Kg		87	70 - 125	4	30
cis-1,3-Dichloropropene	0.0500	0.0469		mg/Kg		94	70 - 125	8	30
Dibromochloromethane	0.0500	0.0483		mg/Kg		97	69 - 125	7	30
1,1-Dichloroethane	0.0500	0.0445		mg/Kg		89	70 - 125	5	30
1,2-Dichloroethane	0.0500	0.0428		mg/Kg		86	70 - 130	6	30
1,1-Dichloroethene	0.0500	0.0420		mg/Kg		84	70 - 120	7	30
1,2-Dichloropropane	0.0500	0.0441		mg/Kg		88	70 - 125	3	30
Ethylbenzene	0.0500	0.0478		mg/Kg		96	61 - 136	6	30
2-Hexanone	0.0500	0.0486		mg/Kg		97	48 - 146	2	30
Methylene Chloride	0.0500	0.0415		mg/Kg		83	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0466		mg/Kg		93	50 - 148	0	30
Methyl tert-butyl ether	0.0500	0.0457		mg/Kg		91	50 - 140	3	30
Styrene	0.0500	0.0487		mg/Kg		97	70 - 125	6	30
1,1,2,2-Tetrachloroethane	0.0500	0.0476		mg/Kg		95	70 - 122	4	30
Tetrachloroethene	0.0500	0.0475		mg/Kg		95	70 - 124	9	30
Toluene	0.0500	0.0472		mg/Kg		94	70 - 125	8	30
trans-1,2-Dichloroethene	0.0500	0.0435		mg/Kg		87	70 - 125	5	30
trans-1,3-Dichloropropene	0.0500	0.0475		mg/Kg		95	70 - 125	6	30
1,1,1-Trichloroethane	0.0500	0.0460		mg/Kg		92	70 - 128	4	30
1,1,2-Trichloroethane	0.0500	0.0473		mg/Kg		95	70 - 125	4	30
Trichloroethene	0.0500	0.0432		mg/Kg		86	70 - 125	5	30
Vinyl acetate	0.0500	0.0326		mg/Kg		65	40 - 153	4	30
Vinyl chloride	0.0500	0.0520		mg/Kg		104	70 - 125	3	30
Xylenes, Total	0.100	0.0958		mg/Kg		96	53 - 147	7	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		75 - 131
Dibromofluoromethane	81		75 - 126
1,2-Dichloroethane-d4 (Surr)	78		70 - 134
Toluene-d8 (Surr)	94		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-433188/1-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433188

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/21/18 07:31	05/22/18 11:44	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-433188/1-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433188

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/21/18 07:31	05/22/18 11:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	112		46 - 133	05/21/18 07:31	05/22/18 11:44	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 11:44	1
Nitrobenzene-d5	88		41 - 120	05/21/18 07:31	05/22/18 11:44	1
2-Fluorobiphenyl	142	X	44 - 121	05/21/18 07:31	05/22/18 11:44	1
2,4,6-Tribromophenol	108		25 - 139	05/21/18 07:31	05/22/18 11:44	1
Terphenyl-d14	114		35 - 160	05/21/18 07:31	05/22/18 11:44	1

Lab Sample ID: LCS 500-433188/2-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bis(2-chloroethyl)ether	1.33	1.14		mg/Kg		86	55 - 111
1,3-Dichlorobenzene	1.33	1.23		mg/Kg		92	60 - 110
1,4-Dichlorobenzene	1.33	1.22		mg/Kg		92	61 - 110
1,2-Dichlorobenzene	1.33	1.23		mg/Kg		92	62 - 110
2-Methylphenol	1.33	1.18		mg/Kg		89	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.678		mg/Kg		51	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.03		mg/Kg		77	56 - 118
Hexachloroethane	1.33	1.24		mg/Kg		93	61 - 110
2-Chlorophenol	1.33	1.33		mg/Kg		100	64 - 110
Nitrobenzene	1.33	1.28		mg/Kg		96	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.22		mg/Kg		91	60 - 112
1,2,4-Trichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
Isophorone	1.33	1.18		mg/Kg		88	55 - 110
2,4-Dimethylphenol	1.33	1.22		mg/Kg		92	60 - 110
Hexachlorobutadiene	1.33	1.33		mg/Kg		100	56 - 120
Naphthalene	1.33	1.24		mg/Kg		93	63 - 110
2,4-Dichlorophenol	1.33	1.38		mg/Kg		104	58 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-433188/2-A

Matrix: Solid

Analysis Batch: 433360

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 433188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.15		mg/Kg		86	30 - 150
2,4,6-Trichlorophenol	1.33	1.32		mg/Kg		99	57 - 120
2,4,5-Trichlorophenol	1.33	1.37		mg/Kg		103	50 - 120
Hexachlorocyclopentadiene	1.33	1.01		mg/Kg		76	10 - 106
2-Methylnaphthalene	1.33	1.25		mg/Kg		94	62 - 110
2-Nitroaniline	1.33	1.20		mg/Kg		90	57 - 124
2-Chloronaphthalene	1.33	1.25		mg/Kg		94	64 - 110
4-Chloro-3-methylphenol	1.33	1.33		mg/Kg		100	61 - 114
2,6-Dinitrotoluene	1.33	1.32		mg/Kg		99	67 - 120
2-Nitrophenol	1.33	1.42		mg/Kg		106	60 - 120
3-Nitroaniline	1.33	0.903		mg/Kg		68	40 - 122
Dimethyl phthalate	1.33	1.27		mg/Kg		95	64 - 110
2,4-Dinitrophenol	2.67	0.904		mg/Kg		34	10 - 100
Acenaphthylene	1.33	1.27		mg/Kg		96	60 - 110
2,4-Dinitrotoluene	1.33	1.33		mg/Kg		100	62 - 117
Acenaphthene	1.33	1.29		mg/Kg		96	58 - 110
Dibenzofuran	1.33	1.28		mg/Kg		96	64 - 110
4-Nitrophenol	2.67	2.19		mg/Kg		82	30 - 122
Fluorene	1.33	1.27		mg/Kg		96	62 - 120
4-Nitroaniline	1.33	1.17		mg/Kg		88	60 - 160
4-Bromophenyl phenyl ether	1.33	1.36		mg/Kg		102	63 - 110
Hexachlorobenzene	1.33	1.45		mg/Kg		108	55 - 117
Diethyl phthalate	1.33	1.25		mg/Kg		93	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.29		mg/Kg		97	63 - 110
Pentachlorophenol	2.67	2.03		mg/Kg		76	13 - 112
N-Nitrosodiphenylamine	1.33	1.33		mg/Kg		100	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.42		mg/Kg		53	10 - 110
Phenanthrene	1.33	1.28		mg/Kg		96	62 - 120
Anthracene	1.33	1.31		mg/Kg		98	63 - 110
Carbazole	1.33	1.42		mg/Kg		106	59 - 158
Di-n-butyl phthalate	1.33	1.29		mg/Kg		97	65 - 120
Fluoranthene	1.33	1.40		mg/Kg		105	62 - 120
Pyrene	1.33	1.42		mg/Kg		107	63 - 120
Butyl benzyl phthalate	1.33	1.38		mg/Kg		104	61 - 116
Benzo[a]anthracene	1.33	1.38		mg/Kg		103	63 - 110
Chrysene	1.33	1.47		mg/Kg		110	63 - 120
3,3'-Dichlorobenzidine	1.33	1.21		mg/Kg		91	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.31		mg/Kg		98	63 - 118
Di-n-octyl phthalate	1.33	1.38		mg/Kg		104	63 - 119
Benzo[b]fluoranthene	1.33	1.36		mg/Kg		102	62 - 120
Benzo[k]fluoranthene	1.33	1.33		mg/Kg		100	65 - 120
Benzo[a]pyrene	1.33	1.40		mg/Kg		105	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.51		mg/Kg		113	57 - 127
Dibenz(a,h)anthracene	1.33	1.33		mg/Kg		100	64 - 119
Benzo[g,h,i]perylene	1.33	1.49		mg/Kg		112	64 - 120
3 & 4 Methylphenol	1.33	1.16		mg/Kg		87	57 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-433188/2-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433188

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	111		46 - 133
Phenol-d5	100		46 - 125
Nitrobenzene-d5	95		41 - 120
2-Fluorobiphenyl	102		44 - 121
2,4,6-Tribromophenol	102		25 - 139
Terphenyl-d14	122		35 - 160

Lab Sample ID: 500-145298-1 MS
Matrix: Solid
Analysis Batch: 433370

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 433188

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	<0.19		1.53	1.30		mg/Kg	☼	85	56 - 122
Bis(2-chloroethyl)ether	<0.19	F1 F2	1.53	1.07		mg/Kg	☼	70	55 - 111
1,3-Dichlorobenzene	<0.19		1.53	0.920		mg/Kg	☼	60	60 - 110
1,4-Dichlorobenzene	<0.19		1.53	0.953		mg/Kg	☼	62	61 - 110
1,2-Dichlorobenzene	<0.19	F1	1.53	0.937	F1	mg/Kg	☼	61	62 - 110
2-Methylphenol	<0.19		1.53	1.27		mg/Kg	☼	83	60 - 120
2,2'-oxybis[1-chloropropane]	<0.19		1.53	1.21		mg/Kg	☼	79	40 - 124
N-Nitrosodi-n-propylamine	<0.077		1.53	1.07		mg/Kg	☼	70	56 - 118
Hexachloroethane	<0.19	F1	1.53	0.921	F1	mg/Kg	☼	60	61 - 110
2-Chlorophenol	<0.19		1.53	1.14		mg/Kg	☼	74	64 - 110
Nitrobenzene	<0.038		1.53	1.08		mg/Kg	☼	71	60 - 116
Bis(2-chloroethoxy)methane	<0.19		1.53	1.06		mg/Kg	☼	69	60 - 112
1,2,4-Trichlorobenzene	<0.19		1.53	0.976		mg/Kg	☼	64	62 - 110
Isophorone	<0.19		1.53	0.972		mg/Kg	☼	64	55 - 110
2,4-Dimethylphenol	<0.38		1.53	1.07		mg/Kg	☼	70	60 - 110
Hexachlorobutadiene	<0.19		1.53	1.04		mg/Kg	☼	68	56 - 120
Naphthalene	<0.038	F1	1.53	0.955	F1	mg/Kg	☼	62	63 - 110
2,4-Dichlorophenol	<0.38		1.53	1.06		mg/Kg	☼	70	58 - 120
4-Chloroaniline	<0.77		1.53	0.819		mg/Kg	☼	54	30 - 150
2,4,6-Trichlorophenol	<0.38		1.53	1.04		mg/Kg	☼	68	57 - 120
2,4,5-Trichlorophenol	<0.38		1.53	1.15		mg/Kg	☼	75	50 - 120
Hexachlorocyclopentadiene	<0.77	F1	1.53	<0.77	F1	mg/Kg	☼	0	10 - 106
2-Methylnaphthalene	<0.077	F1	1.53	0.964		mg/Kg	☼	63	62 - 110
2-Nitroaniline	<0.19		1.53	1.19		mg/Kg	☼	78	57 - 124
2-Chloronaphthalene	<0.19		1.53	0.983		mg/Kg	☼	64	64 - 110
4-Chloro-3-methylphenol	<0.38		1.53	1.12		mg/Kg	☼	74	61 - 114
2,6-Dinitrotoluene	<0.19		1.53	1.04		mg/Kg	☼	68	67 - 120
2-Nitrophenol	<0.38		1.53	1.04		mg/Kg	☼	68	60 - 120
3-Nitroaniline	<0.38		1.53	0.832		mg/Kg	☼	54	40 - 122
Dimethyl phthalate	<0.19		1.53	1.05		mg/Kg	☼	69	64 - 110
2,4-Dinitrophenol	<0.77	F2	3.06	2.03		mg/Kg	☼	66	10 - 100
Acenaphthylene	<0.038		1.53	1.01		mg/Kg	☼	66	60 - 110
2,4-Dinitrotoluene	<0.19		1.53	1.02		mg/Kg	☼	66	62 - 117
Acenaphthene	<0.038		1.53	1.09		mg/Kg	☼	72	58 - 110
Dibenzofuran	<0.19	F1	1.53	0.974		mg/Kg	☼	64	64 - 110
4-Nitrophenol	<0.77		3.06	1.16		mg/Kg	☼	38	30 - 122

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-1 MS
Matrix: Solid
Analysis Batch: 433370

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 433188

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Fluorene	<0.038		1.53	1.05		mg/Kg	☼	69	62 - 120
4-Nitroaniline	<0.38		1.53	0.937		mg/Kg	☼	61	60 - 160
4-Bromophenyl phenyl ether	<0.19		1.53	1.31		mg/Kg	☼	86	63 - 110
Hexachlorobenzene	<0.077		1.53	1.33		mg/Kg	☼	87	55 - 117
Diethyl phthalate	<0.19		1.53	1.19		mg/Kg	☼	78	58 - 120
4-Chlorophenyl phenyl ether	<0.19		1.53	1.09		mg/Kg	☼	71	63 - 110
Pentachlorophenol	<0.77		3.06	1.32		mg/Kg	☼	43	13 - 112
N-Nitrosodiphenylamine	<0.19	F1	1.53	1.04		mg/Kg	☼	68	65 - 112
4,6-Dinitro-2-methylphenol	<0.77		3.06	2.03		mg/Kg	☼	66	10 - 110
Phenanthrene	<0.038		1.53	1.12		mg/Kg	☼	73	62 - 120
Anthracene	<0.038		1.53	1.07		mg/Kg	☼	70	63 - 110
Carbazole	<0.19		1.53	1.05		mg/Kg	☼	69	59 - 158
Di-n-butyl phthalate	<0.19		1.53	1.09		mg/Kg	☼	71	65 - 120
Fluoranthene	<0.038		1.53	1.06		mg/Kg	☼	70	62 - 120
Pyrene	<0.038		1.53	1.09		mg/Kg	☼	71	63 - 120
Butyl benzyl phthalate	<0.19		1.53	1.15		mg/Kg	☼	75	61 - 116
Benzo[a]anthracene	<0.038		1.53	1.23		mg/Kg	☼	80	63 - 110
Chrysene	<0.038		1.53	1.15		mg/Kg	☼	75	63 - 120
3,3'-Dichlorobenzidine	<0.19		1.53	1.03		mg/Kg	☼	67	49 - 112
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.28		mg/Kg	☼	83	63 - 118
Di-n-octyl phthalate	<0.19		1.53	1.37		mg/Kg	☼	90	63 - 119
Benzo[b]fluoranthene	<0.038		1.53	1.25		mg/Kg	☼	82	62 - 120
Benzo[k]fluoranthene	<0.038		1.53	1.29		mg/Kg	☼	84	65 - 120
Benzo[a]pyrene	<0.038		1.53	1.16		mg/Kg	☼	76	61 - 120
Indeno[1,2,3-cd]pyrene	<0.038		1.53	1.44		mg/Kg	☼	94	57 - 127
Dibenz(a,h)anthracene	<0.038	F2	1.53	1.51		mg/Kg	☼	99	64 - 119
Benzo[g,h,i]perylene	<0.038	F2	1.53	1.68		mg/Kg	☼	110	64 - 120
3 & 4 Methylphenol	<0.19		1.53	1.18		mg/Kg	☼	78	57 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol	97		46 - 133
Phenol-d5	81		46 - 125
Nitrobenzene-d5	68		41 - 120
2-Fluorobiphenyl	68		44 - 121
2,4,6-Tribromophenol	92		25 - 139
Terphenyl-d14	86		35 - 160

Lab Sample ID: 500-145298-1 MSD
Matrix: Solid
Analysis Batch: 433370

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 433188

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phenol	<0.19		1.52	1.27		mg/Kg	☼	83	56 - 122	2	30
Bis(2-chloroethyl)ether	<0.19	F1 F2	1.52	1.76	F1 F2	mg/Kg	☼	116	55 - 111	49	30
1,3-Dichlorobenzene	<0.19		1.52	0.961		mg/Kg	☼	63	60 - 110	4	30
1,4-Dichlorobenzene	<0.19		1.52	0.989		mg/Kg	☼	65	61 - 110	4	30
1,2-Dichlorobenzene	<0.19	F1	1.52	1.02		mg/Kg	☼	67	62 - 110	8	30
2-Methylphenol	<0.19		1.52	0.953		mg/Kg	☼	63	60 - 120	29	30

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-1 MSD

Matrix: Solid

Analysis Batch: 433370

Client Sample ID: 2273V-01-B04 (0-3)

Prep Type: Total/NA

Prep Batch: 433188

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result			Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	<0.19		1.52	1.06		mg/Kg	☼	70	40 - 124	13	30
N-Nitrosodi-n-propylamine	<0.077		1.52	1.01		mg/Kg	☼	66	56 - 118	6	30
Hexachloroethane	<0.19	F1	1.52	0.887	F1	mg/Kg	☼	58	61 - 110	4	30
2-Chlorophenol	<0.19		1.52	1.15		mg/Kg	☼	75	64 - 110	1	30
Nitrobenzene	<0.038		1.52	0.999		mg/Kg	☼	66	60 - 116	8	30
Bis(2-chloroethoxy)methane	<0.19		1.52	1.04		mg/Kg	☼	68	60 - 112	2	30
1,2,4-Trichlorobenzene	<0.19		1.52	0.958		mg/Kg	☼	63	62 - 110	2	30
Isophorone	<0.19		1.52	0.952		mg/Kg	☼	62	55 - 110	2	30
2,4-Dimethylphenol	<0.38		1.52	1.06		mg/Kg	☼	69	60 - 110	1	30
Hexachlorobutadiene	<0.19		1.52	0.907		mg/Kg	☼	59	56 - 120	14	30
Naphthalene	<0.038	F1	1.52	0.935	F1	mg/Kg	☼	61	63 - 110	2	30
2,4-Dichlorophenol	<0.38		1.52	1.04		mg/Kg	☼	68	58 - 120	2	30
4-Chloroaniline	<0.77		1.52	0.657	J	mg/Kg	☼	43	30 - 150	22	30
2,4,6-Trichlorophenol	<0.38		1.52	1.02		mg/Kg	☼	67	57 - 120	2	30
2,4,5-Trichlorophenol	<0.38		1.52	0.989		mg/Kg	☼	65	50 - 120	15	30
Hexachlorocyclopentadiene	<0.77	F1	1.52	<0.77	F1	mg/Kg	☼	0	10 - 106	NC	30
2-Methylnaphthalene	<0.077	F1	1.52	0.907	F1	mg/Kg	☼	59	62 - 110	6	30
2-Nitroaniline	<0.19		1.52	1.23		mg/Kg	☼	81	57 - 124	3	30
2-Chloronaphthalene	<0.19		1.52	1.00		mg/Kg	☼	66	64 - 110	2	30
4-Chloro-3-methylphenol	<0.38		1.52	1.01		mg/Kg	☼	66	61 - 114	11	30
2,6-Dinitrotoluene	<0.19		1.52	1.04		mg/Kg	☼	68	67 - 120	0	30
2-Nitrophenol	<0.38		1.52	0.971		mg/Kg	☼	64	60 - 120	7	30
3-Nitroaniline	<0.38		1.52	0.848		mg/Kg	☼	56	40 - 122	2	30
Dimethyl phthalate	<0.19		1.52	1.01		mg/Kg	☼	66	64 - 110	3	30
2,4-Dinitrophenol	<0.77	F2	3.05	1.34	F2	mg/Kg	☼	44	10 - 100	41	30
Acenaphthylene	<0.038		1.52	1.02		mg/Kg	☼	67	60 - 110	1	30
2,4-Dinitrotoluene	<0.19		1.52	0.996		mg/Kg	☼	65	62 - 117	2	30
Acenaphthene	<0.038		1.52	0.964		mg/Kg	☼	63	58 - 110	12	30
Dibenzofuran	<0.19	F1	1.52	0.963	F1	mg/Kg	☼	63	64 - 110	1	30
4-Nitrophenol	<0.77		3.05	1.07		mg/Kg	☼	35	30 - 122	8	30
Fluorene	<0.038		1.52	1.00		mg/Kg	☼	66	62 - 120	5	30
4-Nitroaniline	<0.38		1.52	0.948		mg/Kg	☼	62	60 - 160	1	30
4-Bromophenyl phenyl ether	<0.19		1.52	1.25		mg/Kg	☼	82	63 - 110	5	30
Hexachlorobenzene	<0.077		1.52	1.09		mg/Kg	☼	72	55 - 117	19	30
Diethyl phthalate	<0.19		1.52	1.05		mg/Kg	☼	69	58 - 120	12	30
4-Chlorophenyl phenyl ether	<0.19		1.52	1.05		mg/Kg	☼	69	63 - 110	4	30
Pentachlorophenol	<0.77		3.05	1.48		mg/Kg	☼	48	13 - 112	11	30
N-Nitrosodiphenylamine	<0.19	F1	1.52	0.898	F1	mg/Kg	☼	59	65 - 112	15	30
4,6-Dinitro-2-methylphenol	<0.77		3.05	1.57		mg/Kg	☼	52	10 - 110	25	30
Phenanthrene	<0.038		1.52	1.07		mg/Kg	☼	70	62 - 120	5	30
Anthracene	<0.038		1.52	1.07		mg/Kg	☼	70	63 - 110	0	30
Carbazole	<0.19		1.52	0.926		mg/Kg	☼	61	59 - 158	13	30
Di-n-butyl phthalate	<0.19		1.52	0.998		mg/Kg	☼	65	65 - 120	9	30
Fluoranthene	<0.038		1.52	0.984		mg/Kg	☼	65	62 - 120	8	30
Pyrene	<0.038		1.52	1.08		mg/Kg	☼	71	63 - 120	1	30
Butyl benzyl phthalate	<0.19		1.52	1.20		mg/Kg	☼	79	61 - 116	4	30
Benzo[a]anthracene	<0.038		1.52	1.13		mg/Kg	☼	74	63 - 110	8	30
Chrysene	<0.038		1.52	1.21		mg/Kg	☼	80	63 - 120	5	30
3,3'-Dichlorobenzidine	<0.19		1.52	1.02		mg/Kg	☼	67	49 - 112	0	30

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-1 MSD

Matrix: Solid

Analysis Batch: 433370

Client Sample ID: 2273V-01-B04 (0-3)

Prep Type: Total/NA

Prep Batch: 433188

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.19		1.52	1.27		mg/Kg	☼	83	63 - 118	1	30
Di-n-octyl phthalate	<0.19		1.52	1.16		mg/Kg	☼	76	63 - 119	17	30
Benzo[b]fluoranthene	<0.038		1.52	0.941		mg/Kg	☼	62	62 - 120	28	30
Benzo[k]fluoranthene	<0.038		1.52	1.05		mg/Kg	☼	69	65 - 120	21	30
Benzo[a]pyrene	<0.038		1.52	1.03		mg/Kg	☼	68	61 - 120	12	30
Indeno[1,2,3-cd]pyrene	<0.038		1.52	1.06		mg/Kg	☼	70	57 - 127	30	30
Dibenz(a,h)anthracene	<0.038	F2	1.52	1.07	F2	mg/Kg	☼	70	64 - 119	34	30
Benzo[g,h,i]perylene	<0.038	F2	1.52	1.17	F2	mg/Kg	☼	76	64 - 120	36	30
3 & 4 Methylphenol	<0.19		1.52	1.10		mg/Kg	☼	72	57 - 120	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorophenol	100		46 - 133
Phenol-d5	86		46 - 125
Nitrobenzene-d5	60		41 - 120
2-Fluorobiphenyl	68		44 - 121
2,4,6-Tribromophenol	87		25 - 139
Terphenyl-d14	90		35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431918/1-A

Matrix: Solid

Analysis Batch: 432522

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 431918

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Barium	<1.0		1.0	0.11	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Boron	0.498	J	5.0	0.47	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Cadmium	0.117	J	0.20	0.036	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Calcium	10.8	J	20	3.4	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Copper	<1.0		1.0	0.28	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Iron	<20		20	10	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Lead	<0.50		0.50	0.23	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Magnesium	<10		10	5.0	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Manganese	0.182	J	1.0	0.15	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Potassium	<50		50	18	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Silver	<0.50		0.50	0.13	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Sodium	<100		100	15	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Zinc	2.85		2.0	0.88	mg/Kg		05/11/18 17:09	05/16/18 01:16	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 500-431918/1-A
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<1.0		1.0	0.59	mg/Kg		05/11/18 17:09	05/16/18 20:18	1

Lab Sample ID: LCS 500-431918/2-A
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	45.5		mg/Kg		91	80 - 120
Arsenic	10.0	9.17		mg/Kg		92	80 - 120
Barium	200	189		mg/Kg		95	80 - 120
Beryllium	5.00	4.60		mg/Kg		92	80 - 120
Boron	100	82.7		mg/Kg		83	80 - 120
Cadmium	5.00	4.68		mg/Kg		94	80 - 120
Calcium	1000	938		mg/Kg		94	80 - 120
Chromium	20.0	18.9		mg/Kg		95	80 - 120
Cobalt	50.0	46.2		mg/Kg		92	80 - 120
Copper	25.0	23.8		mg/Kg		95	80 - 120
Iron	100	101		mg/Kg		101	80 - 120
Lead	10.0	8.96		mg/Kg		90	80 - 120
Magnesium	1000	902		mg/Kg		90	80 - 120
Manganese	50.0	47.2		mg/Kg		94	80 - 120
Nickel	50.0	45.6		mg/Kg		91	80 - 120
Potassium	1000	950		mg/Kg		95	80 - 120
Silver	5.00	4.41		mg/Kg		88	80 - 120
Sodium	1000	951		mg/Kg		95	80 - 120
Thallium	10.0	8.41		mg/Kg		84	80 - 120
Vanadium	50.0	47.4		mg/Kg		95	80 - 120
Zinc	50.0	45.9		mg/Kg		92	80 - 120

Lab Sample ID: LCS 500-431918/2-A
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	10.0	8.70		mg/Kg		87	80 - 120

Lab Sample ID: 500-145298-1 MS
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<1.1	F1	28.8	5.59	F1	mg/Kg	☼	19	75 - 125
Arsenic	3.7	F1	5.76	7.42	F1	mg/Kg	☼	65	75 - 125
Barium	69		115	156		mg/Kg	☼	76	75 - 125
Beryllium	0.61		2.88	2.98		mg/Kg	☼	82	75 - 125
Boron	4.9	F1 B	57.6	44.5	F1 B	mg/Kg	☼	69	75 - 125
Cadmium	0.14	B	2.88	2.46	B	mg/Kg	☼	80	75 - 125
Chromium	17	F1	11.5	25.3	F1	mg/Kg	☼	74	75 - 125
Cobalt	10		28.8	36.5		mg/Kg	☼	92	75 - 125

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-145298-1 MS
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Copper	12		14.4	26.3		mg/Kg	☼	97	75 - 125	
Iron	16000	B	57.6	15700	4 B	mg/Kg	☼	315	75 - 125	
Lead	8.4	F1	5.76	12.3	F1	mg/Kg	☼	68	75 - 125	
Magnesium	14000		576	20700	4	mg/Kg	☼	1141	75 - 125	
Manganese	420	F2 B	28.8	412	4 B	mg/Kg	☼	-43	75 - 125	
Nickel	17		28.8	42.7		mg/Kg	☼	89	75 - 125	
Potassium	1100	F1	576	2230	F1	mg/Kg	☼	194	75 - 125	
Selenium	0.37	J F1	5.76	3.41	F1	mg/Kg	☼	53	75 - 125	
Silver	0.22	J	2.88	2.52		mg/Kg	☼	80	75 - 125	
Sodium	380		576	859		mg/Kg	☼	82	75 - 125	
Thallium	<0.56		5.76	4.51		mg/Kg	☼	78	75 - 125	
Vanadium	31	F1	28.8	54.1		mg/Kg	☼	79	75 - 125	
Zinc	31	B	28.8	56.8	B	mg/Kg	☼	90	75 - 125	

Lab Sample ID: 500-145298-1 MS
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Calcium	46000	B	576	75800	4	mg/Kg	☼	5199	75 - 125	

Lab Sample ID: 500-145298-1 MSD
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Antimony	<1.1	F1	29.9	6.21	F1	mg/Kg	☼	21	75 - 125	11	20	
Arsenic	3.7	F1	5.98	7.98	F1	mg/Kg	☼	72	75 - 125	7	20	
Barium	69		120	163		mg/Kg	☼	79	75 - 125	4	20	
Beryllium	0.61		2.99	3.24		mg/Kg	☼	88	75 - 125	8	20	
Boron	4.9	F1 B	59.8	49.4	F1 B	mg/Kg	☼	74	75 - 125	10	20	
Cadmium	0.14	B	2.99	2.65	B	mg/Kg	☼	84	75 - 125	8	20	
Chromium	17	F1	12.0	26.0		mg/Kg	☼	78	75 - 125	3	20	
Cobalt	10		29.9	36.2		mg/Kg	☼	88	75 - 125	1	20	
Copper	12		14.9	26.0		mg/Kg	☼	91	75 - 125	1	20	
Iron	16000	B	59.8	14800	4 B	mg/Kg	☼	-1175	75 - 125	6	20	
Lead	8.4	F1	5.98	11.7	F1	mg/Kg	☼	54	75 - 125	5	20	
Magnesium	14000		598	24900	4	mg/Kg	☼	1815	75 - 125	19	20	
Manganese	420	F2 B	29.9	331	4 F2 B	mg/Kg	☼	-313	75 - 125	22	20	
Nickel	17		29.9	44.8		mg/Kg	☼	93	75 - 125	5	20	
Potassium	1100	F1	598	2510	F1	mg/Kg	☼	234	75 - 125	12	20	
Selenium	0.37	J F1	5.98	3.76	F1	mg/Kg	☼	57	75 - 125	10	20	
Silver	0.22	J	2.99	2.72		mg/Kg	☼	84	75 - 125	8	20	
Sodium	380		598	898		mg/Kg	☼	86	75 - 125	4	20	
Thallium	<0.56		5.98	4.61		mg/Kg	☼	77	75 - 125	2	20	
Vanadium	31	F1	29.9	51.6	F1	mg/Kg	☼	68	75 - 125	5	20	
Zinc	31	B	29.9	59.1	B	mg/Kg	☼	94	75 - 125	4	20	

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-145298-1 MSD
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Calcium	46000	B	598	83000	4	mg/Kg	☼	6214	75 - 125	9	20		

Lab Sample ID: 500-145298-1 DU
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<1.1	F1	<1.2		mg/Kg	☼	NC	20
Arsenic	3.7	F1	3.46		mg/Kg	☼	6	20
Barium	69		62.6		mg/Kg	☼	10	20
Beryllium	0.61		0.586		mg/Kg	☼	4	20
Boron	4.9	F1 B	5.30	B	mg/Kg	☼	7	20
Cadmium	0.14	B	0.151	B	mg/Kg	☼	5	20
Chromium	17	F1	16.6		mg/Kg	☼	0.6	20
Cobalt	10		6.12	F3	mg/Kg	☼	48	20
Copper	12		12.0		mg/Kg	☼	3	20
Iron	16000	B	14800	B	mg/Kg	☼	5	20
Lead	8.4	F1	7.53		mg/Kg	☼	11	20
Magnesium	14000		15500		mg/Kg	☼	9	20
Manganese	420	F2 B	239	F3 B	mg/Kg	☼	56	20
Nickel	17		15.2		mg/Kg	☼	11	20
Potassium	1100	F1	1130		mg/Kg	☼	2	20
Selenium	0.37	J F1	<0.59		mg/Kg	☼	NC	20
Silver	0.22	J	0.269	J	mg/Kg	☼	20	20
Sodium	380		371		mg/Kg	☼	3	20
Thallium	<0.56		<0.59		mg/Kg	☼	NC	20
Vanadium	31	F1	28.9		mg/Kg	☼	8	20
Zinc	31	B	29.7	B	mg/Kg	☼	4	20

Lab Sample ID: 500-145298-1 DU
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Calcium	46000	B	58100	F3	mg/Kg	☼	24	20

Lab Sample ID: LCS 500-432389/2-B
Matrix: Solid
Analysis Batch: 433204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432389

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Manganese	0.500	0.489		mg/L		98	80 - 120	

Lab Sample ID: LCS 500-432394/2-A
Matrix: Solid
Analysis Batch: 432694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432394

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
Barium	0.500	0.511		mg/L		102	80 - 120	

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-432394/2-A
Matrix: Solid
Analysis Batch: 432694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	1.00	0.914		mg/L		91	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Chromium	0.200	0.196		mg/L		98	80 - 120
Cobalt	0.500	0.492		mg/L		98	80 - 120
Iron	1.00	0.986		mg/L		99	80 - 120
Lead	0.100	0.0923		mg/L		92	80 - 120
Manganese	0.500	0.482		mg/L		96	80 - 120
Nickel	0.500	0.487		mg/L		97	80 - 120
Selenium	0.100	0.0966		mg/L		97	80 - 120
Silver	0.0500	0.0464		mg/L		93	80 - 120
Zinc	0.500	0.476	J	mg/L		95	80 - 120

Lab Sample ID: LB 500-432149/1-B
Matrix: Solid
Analysis Batch: 432694

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432394

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 00:36	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 00:36	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 00:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 00:36	1
Manganese	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 00:36	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 00:36	1

Lab Sample ID: LB 500-432144/1-D
Matrix: Solid
Analysis Batch: 433204

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 432389

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 02:42	1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-432394/2-A
Matrix: Solid
Analysis Batch: 433392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.513		mg/L		103	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LB 500-432149/1-B
Matrix: Solid
Analysis Batch: 433392

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432394

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:24	1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-433740/12-A
Matrix: Solid
Analysis Batch: 433784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433740

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:13	1

Lab Sample ID: LCS 500-433740/13-A
Matrix: Solid
Analysis Batch: 433784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433740

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

Lab Sample ID: LB 500-432149/1-D
Matrix: Solid
Analysis Batch: 433784

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 433740

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:17	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-433400/12-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/22/18 15:55	05/24/18 10:17	1

Lab Sample ID: LCS 500-433400/13-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

Method: 9045D - pH

Lab Sample ID: 500-145298-1 DU
Matrix: Solid
Analysis Batch: 432929

Client Sample ID: 2273V-01-B04 (0-3)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.2		8.13		SU		0.2	

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 00:48	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:31	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:20	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
					(Start)	05/17/18 15:20		
					(End)	05/17/18 15:22		
Total/NA	Analysis	Moisture		1	431875	05/11/18 14:28	LWN	TAL CHI

Client Sample ID: 2273V-01-B04 (0-3)

Lab Sample ID: 500-145298-1

Date Collected: 05/10/18 14:15

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432712	05/17/18 17:21	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 12:12	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 01:23	PJ1	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		10	432693	05/16/18 20:38	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:32	EEN	TAL CHI

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 00:52	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:34	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:23	PFK	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-01-B03 (0-3)

Lab Sample ID: 500-145298-2

Date Collected: 05/10/18 14:18

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432712	05/17/18 17:48	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 12:38	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 01:43	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:34	EEN	TAL CHI

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 00:56	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:38	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:25	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
						(Start) 05/17/18 15:27		
						(End) 05/17/18 15:30		
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432712	05/17/18 18:14	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 13:05	WDS	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Client Sample ID: 2273V-01-B02 (0-3)

Lab Sample ID: 500-145298-3

Date Collected: 05/10/18 14:22

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 01:47	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:37	EEN	TAL CHI

Client Sample ID: 2273V-01-B01 (0-6)

Lab Sample ID: 500-145298-4

Date Collected: 05/10/18 14:40

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:03	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:00	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:41	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:28	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
					(Start)	05/17/18 15:30		
					(End)	05/17/18 15:33		
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-01-B01 (0-6)

Lab Sample ID: 500-145298-4

Date Collected: 05/10/18 14:40

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432712	05/17/18 18:40	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 13:32	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 01:51	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:39	EEN	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-1

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.1



500-145298 COC

Report To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145298
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 4, 3, 4, 8

Client		Client Project #		Preservative		Parameter										Preservative Key	
E+E		1009341.0041.02														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		# of Containers	Matrix	VOC	SVOC	Total/TCMP Metals	pH	Percent Solids					Comments
Project Location/State		Lab PM		Date	Time												
176-001-WD41A		R. Wright															
Project Location/State		Lab Project #															
Marengo, IL																	
Sampler		Lab PM															
MF, JH		R. Wright															
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/TCMP Metals	pH	Percent Solids						
1		2273V-01-B04(0-3)	5/10/18	1415	5	S	X	X	X	X	X						
2		2273V-01-B03(0-3)	5/10/18	1418	5	S	X	X	X	X	X						
3		2273V-01-B02(0-3)	5/10/18	1422	5	S	X	X	X	X	X						
4		2273V-01-B01(0-6)	5/10/18	1440	5	S	X	X	X	X	X						

Turnaround Time Required (Business Days)
 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>D. Hughes</u> Company: <u>E+E</u> Date: <u>5/10/18</u> Time: <u>1530</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/10/18</u> Time: <u>1530</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/10/18</u> Time: <u>1500</u>	Received By: <u>Shimada</u> Company: <u>TA-CRI</u> Date: <u>5/11/18</u> Time: <u>0715</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145298-1

Login Number: 145298

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145298-3
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:17:41 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Job ID: 500-145298-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145298-3

Receipt

The samples were received on 5/10/2018 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.3° C and 4.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-431918 and analytical batch 500-432522 contained Zinc above the reporting limit (RL). Associated samples 2956V-09-B04 (0-4) (500-145298-13), 2956V-09-B03 (0-4) (500-145298-14), 2956V-09-B02 (0-4) (500-145298-15), and 2956V-09-B01 (0-4) (500-145298-16) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

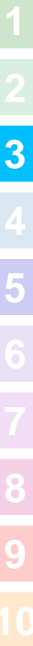
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B04 (0-4)

Lab Sample ID: 500-145298-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0063	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.11	J	0.18	0.091	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0079	J	0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.6		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	3.0	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	2600	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.4		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2200		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	840		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	220		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	32	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.065	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	1.2		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.054		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.020		0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-09-B03 (0-4)

Lab Sample ID: 500-145298-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.6		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	2.8	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	1300	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.4		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	8.6		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	7.5		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2500		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	340	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	730		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.26	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		56	8.3	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B03 (0-4) (Continued)

Lab Sample ID: 500-145298-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.28	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	34	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.48		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.086	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.026		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-09-B02 (0-4)

Lab Sample ID: 500-145298-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.0092	J	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0065	J	0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.1		0.62	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	86		0.62	0.071	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Boron	4.7	B	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	2200	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.62	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.3		0.31	0.082	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.62	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	12	6.5	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3500		6.2	3.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	330	B	0.62	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.62	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		31	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.30	J	0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Sodium	610		62	9.2	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.33	J	0.62	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	36		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	40	B	1.2	0.55	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.44		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.026		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-09-B01 (0-4)

Lab Sample ID: 500-145298-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.7		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	90		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.84		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	7.1	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	11000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B01 (0-4) (Continued)

Lab Sample ID: 500-145298-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	23		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	9.7		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9100		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	340	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.39		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	34		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	40	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.060	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.42		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145298-13	2956V-09-B04 (0-4)	Solid	05/10/18 13:52	05/10/18 18:00
500-145298-14	2956V-09-B03 (0-4)	Solid	05/10/18 13:55	05/10/18 18:00
500-145298-15	2956V-09-B02 (0-4)	Solid	05/10/18 13:58	05/10/18 18:00
500-145298-16	2956V-09-B01 (0-4)	Solid	05/10/18 14:00	05/10/18 18:00

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Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B04 (0-4)

Lab Sample ID: 500-145298-13

Date Collected: 05/10/18 13:52

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 85.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0085	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Chloroethane	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Toluene	<0.0020		0.0020	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/11/18 07:40	05/17/18 17:08	1
Dibromofluoromethane	106		75 - 126	05/11/18 07:40	05/17/18 17:08	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	05/11/18 07:40	05/17/18 17:08	1
Toluene-d8 (Surr)	113		75 - 124	05/11/18 07:40	05/17/18 17:08	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B04 (0-4)

Lab Sample ID: 500-145298-13

Date Collected: 05/10/18 13:52

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 85.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Methylnaphthalene	<0.074		0.074	0.0067	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Hexachlorobenzene	<0.074		0.074	0.0084	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Pentachlorophenol	<0.74		0.74	0.58	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Phenanthrene	0.0063	J	0.036	0.0051	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Carbazole	0.11	J	0.18	0.091	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Fluoranthene	0.0079	J	0.036	0.0068	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B04 (0-4)

Lab Sample ID: 500-145298-13

Date Collected: 05/10/18 13:52

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 85.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0099	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/18/18 07:39	05/19/18 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		46 - 133				05/18/18 07:39	05/19/18 00:29	1
Phenol-d5	93		46 - 125				05/18/18 07:39	05/19/18 00:29	1
Nitrobenzene-d5	82		41 - 120				05/18/18 07:39	05/19/18 00:29	1
2-Fluorobiphenyl	91		44 - 121				05/18/18 07:39	05/19/18 00:29	1
2,4,6-Tribromophenol	70		25 - 139				05/18/18 07:39	05/19/18 00:29	1
Terphenyl-d14	119		35 - 160				05/18/18 07:39	05/19/18 00:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Arsenic	2.6		0.55	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Barium	52		0.55	0.062	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Beryllium	0.38		0.22	0.051	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Boron	3.0	B	2.7	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Cadmium	0.19	B	0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Calcium	2600	B	11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Chromium	12		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Cobalt	5.4		0.27	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Copper	9.4		0.55	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Iron	11000	B	11	5.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Lead	12		0.27	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Magnesium	2200		5.5	2.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Manganese	290	B	0.55	0.079	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Nickel	10		0.55	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Potassium	840		27	9.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Silver	0.19	J	0.27	0.070	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Sodium	220		55	8.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Vanadium	21		0.27	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1
Zinc	32	B	1.1	0.48	mg/Kg	☼	05/11/18 17:09	05/16/18 02:34	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.20	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:45	1
Boron	0.065	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B04 (0-4)

Lab Sample ID: 500-145298-13

Date Collected: 05/10/18 13:52

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 85.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:45	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:45	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:45	1
Iron	1.2		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:45	1
Manganese	0.054		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:45	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:45	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:45	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:45	1
Zinc	0.024	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:45	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:21	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.017	0.0056	mg/Kg	☆	05/22/18 15:55	05/24/18 11:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/17/18 15:54	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B03 (0-4)

Lab Sample ID: 500-145298-14

Date Collected: 05/10/18 13:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/11/18 07:40	05/17/18 17:36	1
Dibromofluoromethane	108		75 - 126	05/11/18 07:40	05/17/18 17:36	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	05/11/18 07:40	05/17/18 17:36	1
Toluene-d8 (Surr)	110		75 - 124	05/11/18 07:40	05/17/18 17:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B03 (0-4)

Lab Sample ID: 500-145298-14

Date Collected: 05/10/18 13:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Phenanthrene	<0.037		0.037	0.0051	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B03 (0-4)

Lab Sample ID: 500-145298-14

Date Collected: 05/10/18 13:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	93		46 - 133	05/18/18 07:39	05/18/18 21:02	1
Phenol-d5	83		46 - 125	05/18/18 07:39	05/18/18 21:02	1
Nitrobenzene-d5	94		41 - 120	05/18/18 07:39	05/18/18 21:02	1
2-Fluorobiphenyl	94		44 - 121	05/18/18 07:39	05/18/18 21:02	1
2,4,6-Tribromophenol	96		25 - 139	05/18/18 07:39	05/18/18 21:02	1
Terphenyl-d14	129		35 - 160	05/18/18 07:39	05/18/18 21:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Arsenic	3.6		0.56	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Barium	39		0.56	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Beryllium	0.46		0.22	0.052	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Boron	2.8 B		2.8	0.26	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Cadmium	0.15 B		0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Calcium	1300 B		11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Chromium	15		0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Cobalt	7.4		0.28	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Copper	8.6		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Iron	15000 B		11	5.8	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Lead	7.5		0.28	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Magnesium	2500		5.6	2.8	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Manganese	340 B		0.56	0.081	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Nickel	19		0.56	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Potassium	730		28	9.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Silver	0.26 J		0.28	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Sodium	280		56	8.3	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Thallium	0.28 J		0.56	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Vanadium	27		0.28	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1
Zinc	34 B		1.1	0.49	mg/Kg	☼	05/11/18 17:09	05/16/18 02:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.18 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:49	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B03 (0-4)

Lab Sample ID: 500-145298-14

Date Collected: 05/10/18 13:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:49	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:49	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:49	1
Iron	0.48		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:49	1
Manganese	0.036		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:49	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:49	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:49	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:49	1
Zinc	0.086	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:49	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:24	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.017	0.0057	mg/Kg	✱	05/22/18 15:55	05/24/18 11:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4		0.20	0.20	SU			05/17/18 15:56	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B02 (0-4)

Lab Sample ID: 500-145298-15

Date Collected: 05/10/18 13:58

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0085	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Chloroethane	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,2-Dichloropropane	<0.0020		0.0020	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Ethylbenzene	<0.0020		0.0020	0.00093	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Tetrachloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Toluene	<0.0020		0.0020	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Vinyl chloride	<0.0020		0.0020	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/11/18 07:40	05/17/18 18:03	1
Dibromofluoromethane	106		75 - 126	05/11/18 07:40	05/17/18 18:03	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	05/11/18 07:40	05/17/18 18:03	1
Toluene-d8 (Surr)	103		75 - 124	05/11/18 07:40	05/17/18 18:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B02 (0-4)

Lab Sample ID: 500-145298-15

Date Collected: 05/10/18 13:58

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Pyrene	0.0092	J	0.041	0.0082	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Benzo[a]anthracene	0.0065	J	0.041	0.0055	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B02 (0-4)

Lab Sample ID: 500-145298-15

Date Collected: 05/10/18 13:58

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	05/18/18 07:39	05/18/18 21:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	90		46 - 133	05/18/18 07:39	05/18/18 21:27	1
Phenol-d5	82		46 - 125	05/18/18 07:39	05/18/18 21:27	1
Nitrobenzene-d5	93		41 - 120	05/18/18 07:39	05/18/18 21:27	1
2-Fluorobiphenyl	93		44 - 121	05/18/18 07:39	05/18/18 21:27	1
2,4,6-Tribromophenol	77		25 - 139	05/18/18 07:39	05/18/18 21:27	1
Terphenyl-d14	130		35 - 160	05/18/18 07:39	05/18/18 21:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Arsenic	4.1		0.62	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Barium	86		0.62	0.071	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Beryllium	0.70		0.25	0.058	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Boron	4.7 B		3.1	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Cadmium	0.18 B		0.12	0.022	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Calcium	2200 B		12	2.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Chromium	21		0.62	0.31	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Cobalt	9.3		0.31	0.082	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Copper	14		0.62	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Iron	19000 B		12	6.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Lead	10		0.31	0.14	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Magnesium	3500		6.2	3.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Manganese	330 B		0.62	0.091	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Nickel	20		0.62	0.18	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Potassium	1300		31	11	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Selenium	<0.62		0.62	0.37	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Silver	0.30 J		0.31	0.081	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Sodium	610		62	9.2	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Thallium	0.33 J		0.62	0.31	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Vanadium	36		0.31	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1
Zinc	40 B		1.2	0.55	mg/Kg	☼	05/11/18 17:09	05/16/18 02:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:53	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B02 (0-4)

Lab Sample ID: 500-145298-15

Date Collected: 05/10/18 13:58

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:53	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:53	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:53	1
Iron	0.44		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:53	1
Manganese	0.034		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:53	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:53	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:53	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:53	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:53	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:28	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0063	mg/Kg	✱	05/22/18 15:55	05/24/18 11:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU			05/17/18 15:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B01 (0-4)

Lab Sample ID: 500-145298-16

Date Collected: 05/10/18 14:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	05/11/18 07:40	05/17/18 18:30	1
Dibromofluoromethane	112		75 - 126	05/11/18 07:40	05/17/18 18:30	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/11/18 07:40	05/17/18 18:30	1
Toluene-d8 (Surr)	103		75 - 124	05/11/18 07:40	05/17/18 18:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B01 (0-4)

Lab Sample ID: 500-145298-16

Date Collected: 05/10/18 14:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B01 (0-4)

Lab Sample ID: 500-145298-16

Date Collected: 05/10/18 14:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	05/18/18 07:39	05/18/18 21:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	81		46 - 133	05/18/18 07:39	05/18/18 21:52	1
Phenol-d5	83		46 - 125	05/18/18 07:39	05/18/18 21:52	1
Nitrobenzene-d5	82		41 - 120	05/18/18 07:39	05/18/18 21:52	1
2-Fluorobiphenyl	83		44 - 121	05/18/18 07:39	05/18/18 21:52	1
2,4,6-Tribromophenol	80		25 - 139	05/18/18 07:39	05/18/18 21:52	1
Terphenyl-d14	126		35 - 160	05/18/18 07:39	05/18/18 21:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Arsenic	3.7		0.58	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Barium	90		0.58	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Beryllium	0.84		0.23	0.054	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Boron	7.1 B		2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Cadmium	0.17 B		0.12	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Calcium	11000 B		12	2.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Chromium	23		0.58	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Cobalt	11		0.29	0.076	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Copper	18		0.58	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Iron	20000 B		12	6.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Lead	9.7		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Magnesium	9100		5.8	2.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Manganese	340 B		0.58	0.084	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Nickel	26		0.58	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Potassium	1600		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Selenium	0.37 J		0.58	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Silver	0.39		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Sodium	500		58	8.6	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Vanadium	34		0.29	0.068	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1
Zinc	40 B		1.2	0.51	mg/Kg	☼	05/11/18 17:09	05/16/18 02:54	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.63		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:57	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Client Sample ID: 2956V-09-B01 (0-4)

Lab Sample ID: 500-145298-16

Date Collected: 05/10/18 14:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 81.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:57	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:57	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:57	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:57	1
Manganese	0.36		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:57	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:57	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:57	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:57	1
Zinc	0.060	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:57	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.42		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 03:59	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:31	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 07:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0061	mg/Kg	☼	05/22/18 15:55	05/24/18 12:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/17/18 16:01	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-3

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phona: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145298

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 4.3, 4.8

Client		Client Project #		Preservative		Parameter										Preservative Key	
E+E		1009341.0041.02														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		# of Containers		Matrix										Comments	
176-001-W041A																	
Project Location/State		Lab PM		Date		Time											
Marengo, IL		R. Wright		5/10/18		1352		VOC		SVOC		Total/TCDF Metals		pH		Percent Solids	
Sampler		Sample ID		Date		Time											
ME, JH																	
13		2956V-09-B04(0-4)	5/10/18	1352	5	S		X	X	X	X	X	X				
14		2956V-09-B03(0-4)	5/10/18	1355	5	S		X	X	X	X	X	X				
15		2956V-09-B02(0-4)	5/10/18	1358	5	S		X	X	X	X	X	X				
16		2956V-09-B01(0-4)	5/10/18	1400	5	S		X	X	X	X	X	X				

Turnaround Time Required (Business Days): 10 Days
 Requested Due Date: _____
 Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months
 (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>J. Hughes</u>	Company: <u>E+E</u>	Date: <u>5/10/18</u>	Time: <u>1530</u>	Received By: <u>P. Neal</u>	Company: <u>TA</u>	Date: <u>5/10/18</u>	Time: <u>1530</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>P. Neal</u>	Company: <u>E+E</u>	Date: <u>5/10/18</u>	Time: <u>1800</u>	Received By: <u>Shirley</u>	Company: <u>TA-CHP</u>	Date: <u>5/11/18</u>	Time: <u>0715</u>	Shipped: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145298-3

Login Number: 145298

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8300-8800 blocks of S. Grant Highway (ISGS #3696-33)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20589 Longitude: -88.5528
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-02-B01 through 2273V-02-B25 and 2956V-10-B01 through 2956V-10-B03 were sampled within the construction zone adjacent to ISGS #3696-33 (2273V-2 partial, 2956V-10) Agricultural Land. Refer to PSI Report for ISGS #3696-33 (2273V-2 partial, 2956V-10) Agricultural Land including Table 4-4, and Figures 4-2 and 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages J144861-1, J144977-1, J145298-2, J145367-2 and J145298-4.


IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

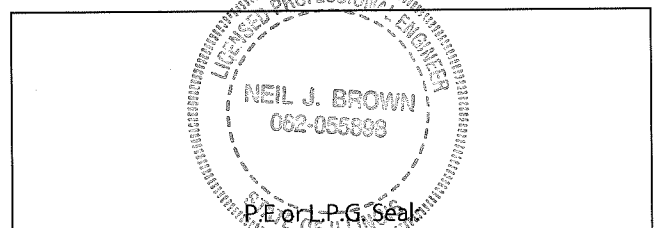
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

1/27/2020
 Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
5/17/2018 5:17:51 PM
Jodie Bracken, Project Management Assistant II
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Designee for
Richard Wright, Senior Project Manager
(708)534-5200
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LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Job ID: 500-144861-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144861-1

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base and / or acid surrogate outside acceptance limits: 2273V-02-B08 (0-3) (500-144861-1), (MB 500-431933/1-A), (500-144861-E-2-F MS) and (500-144861-E-2-G MSD). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The laboratory control sample (LCS) for 500-431933 recovered outside control limits for the following analytes: N-Nitrosodi-n-propylamine and 3&4-Methylphenol. These analytes were biased high in the LCS and were not detected in the associated sample; therefore, the data have been reported.

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported. (500-144861-E-2-F MS) and (500-144861-E-2-G MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B08 (0-3)

Lab Sample ID: 500-144861-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0082	J	0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.015	J	0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0080	J	0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.011	J	0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.0088	J	0.041	0.0080	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0	F1	0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	74	B	0.61	0.070	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61	F1	0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	4.6	F1	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.35	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.0		0.31	0.080	mg/Kg	1	☼	6010B	Total/NA
Copper	13	B	0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		12	6.4	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9000		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.61	0.089	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	990	F1	31	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.86	F1	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.25	J F1	0.31	0.079	mg/Kg	1	☼	6010B	Total/NA
Sodium	400		61	9.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	28		0.31	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.069	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.64		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B07 (0-6)

Lab Sample ID: 500-144861-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0049	J F1	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.2		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	25	B	0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.8		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	76000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.0		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	7.6	B	0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8300		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	8.7		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B07 (0-6) (Continued)

Lab Sample ID: 500-144861-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	9.0		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	900		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.073	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	340		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	22	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.022	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B06 (0-6)

Lab Sample ID: 500-144861-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.011	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0098	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0064	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.27	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.8		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	85	B	0.56	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	5.5		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	53000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	13		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	9.9	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	9.9		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	550		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.97		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.22	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	360		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	27	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.041		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.052	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.014	J	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-1	2273V-02-B08 (0-3)	Solid	05/03/18 12:50	05/03/18 17:40
500-144861-2	2273V-02-B07 (0-6)	Solid	05/03/18 13:40	05/03/18 17:40
500-144861-3	2273V-02-B06 (0-6)	Solid	05/03/18 13:50	05/03/18 17:40

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B08 (0-3)

Lab Sample ID: 500-144861-1

Date Collected: 05/03/18 12:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 78.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0099	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Benzene	<0.0023		0.0023	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Bromodichloromethane	<0.0023		0.0023	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Bromoform	<0.0023		0.0023	0.00066	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Bromomethane	<0.0057		0.0057	0.0021	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
2-Butanone (MEK)	<0.0057		0.0057	0.0025	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Carbon disulfide	<0.0057		0.0057	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Carbon tetrachloride	<0.0023		0.0023	0.00066	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Chlorobenzene	<0.0023		0.0023	0.00084	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Chloroethane	<0.0057		0.0057	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Chloroform	<0.0023		0.0023	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Chloromethane	<0.0057		0.0057	0.0023	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Dibromochloromethane	<0.0023		0.0023	0.00074	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,1-Dichloroethane	<0.0023		0.0023	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,2-Dichloroethane	<0.0057		0.0057	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,1-Dichloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,2-Dichloropropane	<0.0023		0.0023	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,3-Dichloropropane, Total	<0.0023		0.0023	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Methylene Chloride	<0.0057		0.0057	0.0022	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Styrene	<0.0023		0.0023	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,1,1,2-Tetrachloroethane	<0.0023		0.0023	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Tetrachloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Toluene	<0.0023		0.0023	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00076	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.00097	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Trichloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Vinyl acetate	<0.0057		0.0057	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1
Xylenes, Total	<0.0045		0.0045	0.00073	mg/Kg	☼	05/04/18 18:15	05/14/18 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/04/18 18:15	05/14/18 12:50	1
Dibromofluoromethane	108		75 - 126	05/04/18 18:15	05/14/18 12:50	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	05/04/18 18:15	05/14/18 12:50	1
Toluene-d8 (Surr)	105		75 - 124	05/04/18 18:15	05/14/18 12:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B08 (0-3)

Lab Sample ID: 500-144861-1

Date Collected: 05/03/18 12:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 78.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
N-Nitrosodi-n-propylamine	<0.083	*	0.083	0.050	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Phenanthrene	0.0082	J	0.041	0.0057	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Fluoranthene	0.015	J	0.041	0.0076	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Pyrene	0.013	J	0.041	0.0082	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Benzo[a]anthracene	0.0080	J	0.041	0.0055	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B08 (0-3)

Lab Sample ID: 500-144861-1

Date Collected: 05/03/18 12:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 78.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.011	J	0.041	0.011	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Benzo[a]pyrene	0.0088	J	0.041	0.0080	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1
3 & 4 Methylphenol	<0.21	*	0.21	0.069	mg/Kg	☼	05/11/18 18:27	05/12/18 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	119		46 - 133	05/11/18 18:27	05/12/18 16:27	1
Phenol-d5	128	X	46 - 125	05/11/18 18:27	05/12/18 16:27	1
Nitrobenzene-d5	117		41 - 120	05/11/18 18:27	05/12/18 16:27	1
2-Fluorobiphenyl	104		44 - 121	05/11/18 18:27	05/12/18 16:27	1
2,4,6-Tribromophenol	101		25 - 139	05/11/18 18:27	05/12/18 16:27	1
Terphenyl-d14	114		35 - 160	05/11/18 18:27	05/12/18 16:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2	F1	1.2	0.24	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Arsenic	3.0	F1	0.61	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Barium	74	B	0.61	0.070	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Beryllium	0.61	F1	0.25	0.057	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Boron	4.6	F1	3.1	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Cadmium	0.35	B	0.12	0.022	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Calcium	15000	B	12	2.1	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Chromium	16		0.61	0.30	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Cobalt	6.0		0.31	0.080	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Copper	13	B	0.61	0.17	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Iron	13000		12	6.4	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Lead	17		0.31	0.14	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Magnesium	9000		6.1	3.0	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Manganese	290		0.61	0.089	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Nickel	14		0.61	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Potassium	990	F1	31	11	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Selenium	0.86	F1	0.61	0.36	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Silver	0.25	J F1	0.31	0.079	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Sodium	400		61	9.1	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Thallium	<0.61	F1	0.61	0.31	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Vanadium	28		0.31	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1
Zinc	52	B	1.2	0.54	mg/Kg	☼	05/08/18 17:18	05/10/18 05:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:19	1
Boron	0.069	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B08 (0-3)

Lab Sample ID: 500-144861-1

Date Collected: 05/03/18 12:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 78.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:19	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:19	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:19	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:19	1
Manganese	0.64		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:19	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:19	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:19	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:19	1
Zinc	<0.50		0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:19	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.31		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 02:19	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:27	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.020	0.0067	mg/Kg	☼	05/11/18 20:29	05/14/18 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/10/18 16:30	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B07 (0-6)

Lab Sample ID: 500-144861-2

Date Collected: 05/03/18 13:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/04/18 18:15	05/14/18 13:25	1
Dibromofluoromethane	107		75 - 126	05/04/18 18:15	05/14/18 13:25	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/04/18 18:15	05/14/18 13:25	1
Toluene-d8 (Surr)	115		75 - 124	05/04/18 18:15	05/14/18 13:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18	F1	0.18	0.080	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Bis(2-chloroethyl)ether	<0.18	F1 F2	0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B07 (0-6)

Lab Sample ID: 500-144861-2

Date Collected: 05/03/18 13:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Hexachlorocyclopentadiene	<0.73	F1	0.73	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Methylnaphthalene	<0.073		0.073	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Acenaphthene	<0.036	F1	0.036	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Dibenzofuran	<0.18	F1	0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4-Chlorophenyl phenyl ether	<0.18	F1	0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Pentachlorophenol	<0.73	F1	0.73	0.58	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Fluoranthene	<0.036		0.036	0.0067	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Benzo[a]anthracene	0.0049	J F1	0.036	0.0049	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B07 (0-6)

Lab Sample ID: 500-144861-2

Date Collected: 05/03/18 13:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0099	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Bis(2-ethylhexyl) phthalate	<0.18	F1	0.18	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Benzo[b]fluoranthene	<0.036	F1	0.036	0.0078	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Benzo[k]fluoranthene	<0.036	F1	0.036	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
Benzo[g,h,i]perylene	<0.036	F1	0.036	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	132		46 - 133	05/10/18 07:05	05/11/18 01:02	1
Phenol-d5	123		46 - 125	05/10/18 07:05	05/11/18 01:02	1
Nitrobenzene-d5	114		41 - 120	05/10/18 07:05	05/11/18 01:02	1
2-Fluorobiphenyl	120		44 - 121	05/10/18 07:05	05/11/18 01:02	1
2,4,6-Tribromophenol	64		25 - 139	05/10/18 07:05	05/11/18 01:02	1
Terphenyl-d14	131		35 - 160	05/10/18 07:05	05/11/18 01:02	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Arsenic	2.2		0.55	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Barium	25	B	0.55	0.062	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Beryllium	0.33		0.22	0.051	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Boron	4.8		2.7	0.25	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Calcium	76000	B	110	19	mg/Kg	☼	05/08/18 17:18	05/11/18 01:58	10
Chromium	9.0		0.55	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Cobalt	3.8		0.27	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Copper	7.6	B	0.55	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Iron	8300		11	5.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Lead	8.7		0.27	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Magnesium	25000		5.5	2.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Manganese	190		0.55	0.079	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Nickel	9.0		0.55	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Potassium	900		27	9.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Silver	0.073	J	0.27	0.071	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Sodium	340		55	8.1	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Vanadium	17		0.27	0.065	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1
Zinc	22	B	1.1	0.48	mg/Kg	☼	05/08/18 17:18	05/10/18 05:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.33	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:23	1
Boron	0.11	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B07 (0-6)

Lab Sample ID: 500-144861-2

Date Collected: 05/03/18 13:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:23	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:23	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:23	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:23	1
Manganese	0.15		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:23	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:23	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:23	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:23	1
Zinc	0.022	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:23	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.29		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 02:23	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:30	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0061	mg/Kg	☼	05/11/18 20:29	05/14/18 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.20	0.20	SU			05/10/18 16:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B06 (0-6)

Lab Sample ID: 500-144861-3

Date Collected: 05/03/18 13:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 85.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/04/18 18:15	05/14/18 13:56	1
Dibromofluoromethane	108		75 - 126	05/04/18 18:15	05/14/18 13:56	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	05/04/18 18:15	05/14/18 13:56	1
Toluene-d8 (Surr)	100		75 - 124	05/04/18 18:15	05/14/18 13:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B06 (0-6)

Lab Sample ID: 500-144861-3

Date Collected: 05/03/18 13:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 85.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Fluoranthene	0.011	J	0.038	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Pyrene	0.0098	J	0.038	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Benzo[a]anthracene	0.0064	J	0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B06 (0-6)

Lab Sample ID: 500-144861-3

Date Collected: 05/03/18 13:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 85.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Benzo[b]fluoranthene	0.010	J	0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 01:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	129		46 - 133	05/10/18 07:05	05/11/18 01:27	1
Phenol-d5	119		46 - 125	05/10/18 07:05	05/11/18 01:27	1
Nitrobenzene-d5	110		41 - 120	05/10/18 07:05	05/11/18 01:27	1
2-Fluorobiphenyl	116		44 - 121	05/10/18 07:05	05/11/18 01:27	1
2,4,6-Tribromophenol	63		25 - 139	05/10/18 07:05	05/11/18 01:27	1
Terphenyl-d14	127		35 - 160	05/10/18 07:05	05/11/18 01:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Arsenic	2.8		0.56	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Barium	85	B	0.56	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Beryllium	0.47		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Boron	5.5		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Cadmium	0.17	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Calcium	53000	B	110	19	mg/Kg	☼	05/08/18 17:18	05/11/18 02:02	10
Chromium	13		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Cobalt	9.0		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Copper	9.9	B	0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Iron	12000		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Lead	9.9		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Magnesium	20000		5.6	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Manganese	550		0.56	0.081	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Nickel	14		0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Potassium	1100		28	9.8	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Selenium	0.97		0.56	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Silver	0.22	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Sodium	360		56	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Vanadium	24		0.28	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1
Zinc	27	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 05:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:35	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:35	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Client Sample ID: 2273V-02-B06 (0-6)

Lab Sample ID: 500-144861-3

Date Collected: 05/03/18 13:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 85.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:35	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:35	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:35	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:35	1
Manganese	0.041		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:35	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:35	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:35	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:35	1
Zinc	0.052	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:35	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:34	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.019	0.0062	mg/Kg	☼	05/11/18 20:29	05/14/18 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/10/18 16:40	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



500-144861 COC

Report To (optional)
Contact: D. Diebart
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-144861
Chain of Custody Number: _____
Page 1 of 2
Temperature °C of Cooler: 5.4, 5.6

Client		Client Project #		Preservative		Parameter										Preservative Key			
<u>EFE</u>		<u>1009341.0041.02</u>														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other			
Project Name		Lab Project #																	
<u>FAP 525 (hs 20)</u>																			
Project Location/State		Lab PM																	
<u>McHenry Co, IL</u>		<u>R. Wright</u>																	
Sampler																			
<u>B. Fisher</u>																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCS	TCU/PSHP	Total Metals	% Solids	pH						Comments	
			Date	Time															
<u>1</u>		<u>2273V-02-B08(0-3)</u>	<u>5/3/18</u>	<u>1250</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>2</u>		<u>2273V-02-B07(0-6)</u>	<u>5/3/18</u>	<u>1340</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>3</u>		<u>2273V-02-B06(0-6)</u>	<u>5/3/18</u>	<u>1350</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company <u>EFE</u>	Date <u>5/3/18</u>	Time <u>1545</u>	Received By <u>P. Neal</u> Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1545</u>	Lab Courier <u>TA</u>
Relinquished By <u>P. Neal</u> Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1740</u>	Received By <u>[Signature]</u> Company <u>TA-ORA</u>	Date <u>5/4/18</u>	Time <u>0715</u>	Shipped _____
Relinquished By _____	Date _____	Time _____	Received By _____	Date _____	Time _____	Hand Delivered _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-1

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144977-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/20/2018 5:40:25 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Job ID: 500-144977-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144977-1

Comments

No additional comments.

Receipt

The samples were received on 5/4/2018 5:22 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the laboratory control sample LCS associated with analytical batch 432121: Chloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one analyte: Hexachlorocyclopentadiene. Data has been qualified and reported. (500-144977-E-1-K MS) and (500-144977-E-1-L MSD)

Method(s) 8270D: The following samples contained one acid surrogate and/or one base surrogate outside acceptance limits: 2273V-02-B12 (0-6) (500-144977-1), 2273V-02-B13 (0-3) (500-144977-2), 2273V-02-B09 (0-3) (500-144977-5), 2273V-02-B16 (0-4)D (500-144977-9), (500-144977-E-1-K MS) and (500-144977-E-1-L MSD). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Two acid surrogate recoveries for the following sample were outside the upper control limit: 2273V-02-B16 (0-4) (500-144977-8). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 7470A: The extraction blank for analytical batch 500-432215 contained Mercury greater than the reporting limit (RL). The samples were not reanalyzed because All the samples were below the RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0083	J	0.017	0.0072	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.016	J	0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.031	J F1	0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.033	J F1	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.017	J F1	0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.025	J F1	0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.034	J F1	0.041	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.016	J F1	0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J	0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J F1	0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.5	F1	0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	57	F1	0.60	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	8.2	F1	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	34000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	16	F1	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.8		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	12	F1	0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	F2	6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.60	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.60	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	790	F1	30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.73	F1	0.60	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500	F1 F2	60	9.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	F1	1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.063	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.73		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.0072	J	0.034	0.0064	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.094	J	0.17	0.063	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.034	0.0074	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.1		0.48	0.16	mg/Kg	1	☼	6010B	Total/NA
Barium	6.2		0.48	0.055	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.11	J	0.19	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	3.1		2.4	0.22	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.096	0.017	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3) (Continued)

Lab Sample ID: 500-144977-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	97000	B	96	16	mg/Kg	10	☼	6010B	Total/NA
Chromium	4.9		0.48	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.9		0.24	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	4.9		0.48	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	4300	B	9.6	5.0	mg/Kg	1	☼	6010B	Total/NA
Lead	220		0.24	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		4.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	120		0.48	0.070	mg/Kg	1	☼	6010B	Total/NA
Nickel	4.4		0.48	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	380		24	8.5	mg/Kg	1	☼	6010B	Total/NA
Silver	0.095	J	0.24	0.062	mg/Kg	1	☼	6010B	Total/NA
Sodium	180		48	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.4		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Zinc	16		0.96	0.42	mg/Kg	1	☼	6010B	Total/NA
Barium	0.096	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.48		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.026	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.056		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011	J	0.014	0.0063	mg/Kg	1	☼	8260B	Total/NA
Pyrene	0.049		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.032	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.059		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.073		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.9		0.49	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	13		0.49	0.056	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.19	J	0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	4.1		2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	B	0.099	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	84000	B	99	17	mg/Kg	10	☼	6010B	Total/NA
Chromium	5.6		0.49	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.8		0.25	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	7.0		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	5900	B	9.9	5.1	mg/Kg	1	☼	6010B	Total/NA
Lead	7.8		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	34000		4.9	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	160		0.49	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.0		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	490		25	8.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.44	J	0.49	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.089	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	440		49	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Zinc	16		0.99	0.43	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3) (Continued)

Lab Sample ID: 500-144977-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.23	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.77		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.50		0.025	0.010	mg/L	1		6010B	SPLP East
pH	9.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0060	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.12		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.030	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.27		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.095		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.070		0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.021	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.085		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.36		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	3.0		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.6		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	6.6		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9400	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8300		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.3		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	630		28	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.69		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	33		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.76		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.034	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0095	J	0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B09 (0-3) (Continued)

Lab Sample ID: 500-144977-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	63		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.69		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	4.3		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.098	J B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	5400	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.3		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	9.9		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5000		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	210		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.41		0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	46		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.50		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.5		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	120		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	2.1	J	2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	4200	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	8.1		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	12000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2900		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	900		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	590		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.2		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.24	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	320		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	30		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	36		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4) (Continued)

Lab Sample ID: 500-144977-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.056	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.23	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Mercury	0.018		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.015	J	0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.017	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.028	J	0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.028	J	0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.018	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.025	J	0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.036		0.035	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J	0.035	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.012	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.7		0.46	0.16	mg/Kg	1	☼	6010B	Total/NA
Barium	12		0.46	0.052	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.18	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	6.0		2.3	0.21	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.092	0.016	mg/Kg	1	☼	6010B	Total/NA
Calcium	83000	B	92	16	mg/Kg	10	☼	6010B	Total/NA
Chromium	6.6		0.46	0.23	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.23	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.46	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	6600	B	9.2	4.8	mg/Kg	1	☼	6010B	Total/NA
Lead	41		0.23	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000		4.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	180		0.46	0.066	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.1		0.46	0.13	mg/Kg	1	☼	6010B	Total/NA
Potassium	470		23	8.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J	0.46	0.27	mg/Kg	1	☼	6010B	Total/NA
Silver	0.071	J	0.23	0.059	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		46	6.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Zinc	40		0.92	0.40	mg/Kg	1	☼	6010B	Total/NA
Barium	0.16	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Lead	0.0077		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.63		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.042		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0096	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0091	J	0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
Arsenic	4.3		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.57	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	3.1		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	17000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.2		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	7.9		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	11000		5.7	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	73		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	610		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.3		0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	46		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	33		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B16 (0-4)D

Lab Sample ID: 500-144977-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	49		0.59	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.51		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	3.4		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	12000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	9.6		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9800		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	74		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		30	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.2		0.59	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.30	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	35		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	37		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)D (Continued)

Lab Sample ID: 500-144977-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.18		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.0077	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.8		0.49	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.49	0.056	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.29		0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	3.5		2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.099	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	85000	B	99	17	mg/Kg	10	☼	6010B	Total/NA
Chromium	10		0.49	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.25	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	5.7		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	9600	B	9.9	5.1	mg/Kg	1	☼	6010B	Total/NA
Lead	8.3		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000		4.9	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.49	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.3		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	760		25	8.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.49	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	97		49	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Zinc	30		0.99	0.43	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.056	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.029	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J F1 F2	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144977-1	2273V-02-B12 (0-6)	Solid	05/04/18 10:15	05/05/18 17:22
500-144977-2	2273V-02-B13 (0-3)	Solid	05/04/18 10:40	05/05/18 17:22
500-144977-3	2273V-02-B14 (0-3)	Solid	05/04/18 10:50	05/05/18 17:22
500-144977-4	2273V-02-B15 (0-3)	Solid	05/04/18 11:00	05/05/18 17:22
500-144977-5	2273V-02-B09 (0-3)	Solid	05/04/18 13:10	05/05/18 17:22
500-144977-6	2273V-02-B10 (0-4)	Solid	05/04/18 13:20	05/05/18 17:22
500-144977-7	2273V-02-B11 (0-6)	Solid	05/04/18 13:35	05/05/18 17:22
500-144977-8	2273V-02-B16 (0-4)	Solid	05/04/18 14:10	05/05/18 17:22
500-144977-9	2273V-02-B16 (0-4)D	Solid	05/04/18 14:10	05/05/18 17:22
500-144977-10	2273V-02-B17 (0-6)	Solid	05/04/18 14:50	05/05/18 17:22



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 80.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0083	J	0.017	0.0072	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/05/18 08:30	05/15/18 03:55	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 03:55	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 03:55	1
Toluene-d8 (Surr)	91		75 - 124	05/05/18 08:30	05/15/18 03:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.092	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4-Dichlorophenol	<0.41	F1	0.41	0.098	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4,6-Trichlorophenol	<0.41	F1	0.41	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Hexachlorocyclopentadiene	<0.83	F1	0.83	0.24	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Chloronaphthalene	<0.21	F1	0.21	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Chloro-3-methylphenol	<0.41	F1	0.41	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Dimethyl phthalate	<0.21	F1	0.21	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Acenaphthylene	<0.041	F1	0.041	0.0054	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Acenaphthene	<0.041	F1	0.041	0.0074	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Dibenzofuran	<0.21	F1	0.21	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Bromophenyl phenyl ether	<0.21	F1	0.21	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Hexachlorobenzene	<0.083	F1	0.083	0.0095	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4-Chlorophenyl phenyl ether	<0.21	F1	0.21	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
N-Nitrosodiphenylamine	<0.21	F1	0.21	0.049	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Phenanthrene	0.016	J	0.041	0.0057	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Anthracene	<0.041	F1	0.041	0.0069	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Fluoranthene	0.031	J F1	0.041	0.0076	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Pyrene	0.033	J F1	0.041	0.0082	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Butyl benzyl phthalate	<0.21	F1	0.21	0.078	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Benzo[a]anthracene	0.017	J F1	0.041	0.0055	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 80.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.025	J F1	0.041	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
3,3'-Dichlorobenzidine	<0.21	F1	0.21	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Bis(2-ethylhexyl) phthalate	<0.21	F1	0.21	0.075	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Benzo[b]fluoranthene	0.034	J F1	0.041	0.0089	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Benzo[k]fluoranthene	0.016	J F1	0.041	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Benzo[a]pyrene	<0.041	F1	0.041	0.0080	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.041	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Benzo[g,h,i]perylene	0.015	J F1	0.041	0.013	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	05/14/18 07:18	05/15/18 17:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	120		46 - 133				05/14/18 07:18	05/15/18 17:40	1
Phenol-d5	115		46 - 125				05/14/18 07:18	05/15/18 17:40	1
Nitrobenzene-d5	107		41 - 120				05/14/18 07:18	05/15/18 17:40	1
2-Fluorobiphenyl	116		44 - 121				05/14/18 07:18	05/15/18 17:40	1
2,4,6-Tribromophenol	112		25 - 139				05/14/18 07:18	05/15/18 17:40	1
Terphenyl-d14	166	X	35 - 160				05/14/18 07:18	05/15/18 17:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2	F1	1.2	0.24	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Arsenic	3.5	F1	0.60	0.21	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Barium	57	F1	0.60	0.069	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Beryllium	0.59		0.24	0.057	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Boron	8.2	F1	3.0	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Cadmium	0.19	B	0.12	0.022	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Calcium	34000	B	12	2.1	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Chromium	16	F1	0.60	0.30	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Cobalt	5.8		0.30	0.079	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Copper	12	F1	0.60	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Iron	13000	B	12	6.3	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Lead	29		0.30	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Magnesium	20000	F2	6.0	3.0	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Manganese	300		0.60	0.088	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Nickel	14		0.60	0.18	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Potassium	790	F1	30	11	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Selenium	0.73	F1	0.60	0.36	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Silver	0.18	J	0.30	0.078	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Sodium	1500	F1 F2	60	9.0	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Vanadium	25		0.30	0.071	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1
Zinc	52	F1	1.2	0.53	mg/Kg	☼	05/10/18 07:52	05/11/18 04:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:33	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:33	1
Boron	0.063	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 80.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Manganese	1.3		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:33	1
Zinc	0.024	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:33	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.73		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 06:17	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.020	0.0068	mg/Kg	☼	05/15/18 21:35	05/16/18 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/10/18 18:16	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Chloroethane	<0.0043	*	0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/05/18 08:30	05/15/18 04:22	1
Dibromofluoromethane	83		75 - 126	05/05/18 08:30	05/15/18 04:22	1
1,2-Dichloroethane-d4 (Surr)	81		70 - 134	05/05/18 08:30	05/15/18 04:22	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 04:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.076	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.17		0.17	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Methylphenol	<0.17		0.17	0.055	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
N-Nitrosodi-n-propylamine	<0.069		0.069	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Chlorophenol	<0.17		0.17	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Nitrobenzene	<0.034		0.034	0.0085	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Isophorone	<0.17		0.17	0.038	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Naphthalene	<0.034		0.034	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4-Dichlorophenol	<0.34		0.34	0.081	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Chloroaniline	<0.69		0.69	0.16	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4,5-Trichlorophenol	<0.34		0.34	0.078	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Hexachlorocyclopentadiene	<0.69		0.69	0.20	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Methylnaphthalene	<0.069		0.069	0.0063	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,6-Dinitrotoluene	<0.17		0.17	0.067	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2-Nitrophenol	<0.34		0.34	0.081	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4-Dinitrophenol	<0.69		0.69	0.60	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Acenaphthylene	<0.034		0.034	0.0045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
2,4-Dinitrotoluene	<0.17		0.17	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Dibenzofuran	<0.17		0.17	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Nitrophenol	<0.69		0.69	0.33	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Fluorene	<0.034		0.034	0.0048	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Hexachlorobenzene	<0.069		0.069	0.0079	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Diethyl phthalate	<0.17		0.17	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Pentachlorophenol	<0.69		0.69	0.55	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
N-Nitrosodiphenylamine	<0.17		0.17	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
4,6-Dinitro-2-methylphenol	<0.69		0.69	0.28	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Phenanthrene	<0.034		0.034	0.0048	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Anthracene	<0.034		0.034	0.0057	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Carbazole	<0.17		0.17	0.086	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Di-n-butyl phthalate	<0.17		0.17	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Fluoranthene	0.0072 J		0.034	0.0064	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Pyrene	<0.034		0.034	0.0068	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Butyl benzyl phthalate	<0.17		0.17	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Benzo[a]anthracene	<0.034		0.034	0.0046	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.034		0.034	0.0093	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Bis(2-ethylhexyl) phthalate	0.094	J	0.17	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Benzo[b]fluoranthene	0.010	J	0.034	0.0074	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Benzo[a]pyrene	<0.034		0.034	0.0066	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0089	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0066	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Benzo[g,h,i]perylene	<0.034		0.034	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
3 & 4 Methylphenol	<0.17		0.17	0.057	mg/Kg	☼	05/14/18 07:18	05/15/18 16:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133				05/14/18 07:18	05/15/18 16:15	1
Phenol-d5	115		46 - 125				05/14/18 07:18	05/15/18 16:15	1
Nitrobenzene-d5	105		41 - 120				05/14/18 07:18	05/15/18 16:15	1
2-Fluorobiphenyl	123	X	44 - 121				05/14/18 07:18	05/15/18 16:15	1
2,4,6-Tribromophenol	126		25 - 139				05/14/18 07:18	05/15/18 16:15	1
Terphenyl-d14	138		35 - 160				05/14/18 07:18	05/15/18 16:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.96		0.96	0.19	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Arsenic	1.1		0.48	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Barium	6.2		0.48	0.055	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Beryllium	0.11	J	0.19	0.045	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Boron	3.1		2.4	0.22	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Cadmium	0.12	B	0.096	0.017	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Calcium	97000	B	96	16	mg/Kg	☼	05/10/18 07:52	05/12/18 01:53	10
Chromium	4.9		0.48	0.24	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Cobalt	1.9		0.24	0.063	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Copper	4.9		0.48	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Iron	4300	B	9.6	5.0	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Lead	220		0.24	0.11	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Magnesium	35000		4.8	2.4	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Manganese	120		0.48	0.070	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Nickel	4.4		0.48	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Potassium	380		24	8.5	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Selenium	<0.48		0.48	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Silver	0.095	J	0.24	0.062	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Sodium	180		48	7.1	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Thallium	<0.48		0.48	0.24	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Vanadium	8.4		0.24	0.057	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1
Zinc	16		0.96	0.42	mg/Kg	☼	05/10/18 07:52	05/11/18 04:36	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.096	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:37	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:37	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Manganese	0.48		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:37	1
Zinc	0.026	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:37	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.056		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 06:21	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:43	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0059	mg/Kg	☼	05/15/18 21:35	05/16/18 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.20	0.20	SU	-		05/10/18 18:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Table with columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Acetone, Benzene, Bromodichloromethane, Bromoform, Bromomethane, 2-Butanone (MEK), Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloropropane, 1,3-Dichloropropane, Total, Ethylbenzene, 2-Hexanone, Methylene Chloride, 4-Methyl-2-pentanone (MIBK), Methyl tert-butyl ether, Styrene, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Vinyl acetate, Vinyl chloride, Xylenes, Total.

Table with columns: Surrogate, %Recovery, Qualifier, Limits, Prepared, Analyzed, Dil Fac. Rows include 4-Bromofluorobenzene (Surr), Dibromofluoromethane, 1,2-Dichloroethane-d4 (Surr), Toluene-d8 (Surr).

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Table with columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Phenol, Bis(2-chloroethyl)ether, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene.

TestAmerica Chicago



Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Pyrene	0.049		0.035	0.0070	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Benzo[a]anthracene	0.032 J		0.035	0.0047	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.059		0.035	0.0096	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Benzo[a]pyrene	0.073		0.035	0.0068	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/14/18 07:18	05/18/18 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	122		46 - 133	05/14/18 07:18	05/18/18 10:34	1
Phenol-d5	111		46 - 125	05/14/18 07:18	05/18/18 10:34	1
Nitrobenzene-d5	88		41 - 120	05/14/18 07:18	05/18/18 10:34	1
2-Fluorobiphenyl	87		44 - 121	05/14/18 07:18	05/18/18 10:34	1
2,4,6-Tribromophenol	118		25 - 139	05/14/18 07:18	05/18/18 10:34	1
Terphenyl-d14	98		35 - 160	05/14/18 07:18	05/18/18 10:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.99		0.99	0.19	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Arsenic	1.9		0.49	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Barium	13		0.49	0.056	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Beryllium	0.19 J		0.20	0.046	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Boron	4.1		2.5	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Cadmium	0.10 B		0.099	0.018	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Calcium	84000 B		99	17	mg/Kg	☼	05/10/18 07:52	05/12/18 01:57	10
Chromium	5.6		0.49	0.24	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Cobalt	2.8		0.25	0.065	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Copper	7.0		0.49	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Iron	5900 B		9.9	5.1	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Lead	7.8		0.25	0.11	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Magnesium	34000		4.9	2.5	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Manganese	160		0.49	0.072	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Nickel	6.0		0.49	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Potassium	490		25	8.8	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Selenium	0.44 J		0.49	0.29	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Silver	0.089 J		0.25	0.064	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Sodium	440		49	7.3	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Thallium	<0.49		0.49	0.25	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Vanadium	12		0.25	0.058	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1
Zinc	16		0.99	0.43	mg/Kg	☼	05/10/18 07:52	05/11/18 04:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22 J		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:42	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:42	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:42	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:42	1
Iron	0.23	J	0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:42	1
Manganese	0.77		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:42	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:42	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:42	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:42	1
Zinc	0.025	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:42	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.50		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 06:25	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:46	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0055	mg/Kg	☼	05/15/18 21:35	05/16/18 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.20	0.20	SU			05/10/18 18:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 85.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 05:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/05/18 08:30	05/15/18 05:15	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 05:15	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/05/18 08:30	05/15/18 05:15	1
Toluene-d8 (Surr)	91		75 - 124	05/05/18 08:30	05/15/18 05:15	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 85.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Fluorene	0.0060	J	0.038	0.0054	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Phenanthrene	0.12		0.038	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Anthracene	0.030	J	0.038	0.0064	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Fluoranthene	0.27		0.038	0.0071	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Pyrene	0.24		0.038	0.0076	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Benzo[a]anthracene	0.095		0.038	0.0052	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 85.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.14		0.038	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Benzo[b]fluoranthene	0.21		0.038	0.0083	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Benzo[k]fluoranthene	0.076		0.038	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Benzo[a]pyrene	0.12		0.038	0.0074	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Indeno[1,2,3-cd]pyrene	0.070		0.038	0.0099	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Dibenz(a,h)anthracene	0.021	J	0.038	0.0074	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
Benzo[g,h,i]perylene	0.085		0.038	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133	05/14/18 07:18	05/15/18 16:43	1
Phenol-d5	117		46 - 125	05/14/18 07:18	05/15/18 16:43	1
Nitrobenzene-d5	108		41 - 120	05/14/18 07:18	05/15/18 16:43	1
2-Fluorobiphenyl	112		44 - 121	05/14/18 07:18	05/15/18 16:43	1
2,4,6-Tribromophenol	109		25 - 139	05/14/18 07:18	05/15/18 16:43	1
Terphenyl-d14	149		35 - 160	05/14/18 07:18	05/15/18 16:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Arsenic	2.7		0.56	0.19	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Barium	57		0.56	0.064	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Beryllium	0.36		0.23	0.053	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Boron	3.0		2.8	0.26	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Cadmium	0.15	B	0.11	0.020	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Calcium	15000	B	11	1.9	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Chromium	14		0.56	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Cobalt	4.6		0.28	0.074	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Copper	6.6		0.56	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Iron	9400	B	11	5.9	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Lead	16		0.28	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Magnesium	8300		5.6	2.8	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Manganese	360		0.56	0.082	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Nickel	9.3		0.56	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Potassium	630		28	10	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Selenium	0.69		0.56	0.33	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Silver	0.15	J	0.28	0.073	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Sodium	1200		56	8.3	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Vanadium	23		0.28	0.066	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1
Zinc	33		1.1	0.49	mg/Kg	☼	05/10/18 07:52	05/11/18 04:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:46	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 85.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:46	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:46	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:46	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:46	1
Manganese	0.76		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:46	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:46	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:46	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:46	1
Zinc	0.034	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:46	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.6		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 06:29	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.019	0.0063	mg/Kg	☼	05/15/18 21:35	05/16/18 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.20	0.20	SU			05/10/18 18:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Chloroform	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 05:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/05/18 08:30	05/15/18 05:41	1
Dibromofluoromethane	83		75 - 126	05/05/18 08:30	05/15/18 05:41	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/05/18 08:30	05/15/18 05:41	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 05:41	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	120		46 - 133	05/14/18 07:18	05/15/18 15:18	1
Phenol-d5	116		46 - 125	05/14/18 07:18	05/15/18 15:18	1
Nitrobenzene-d5	101		41 - 120	05/14/18 07:18	05/15/18 15:18	1
2-Fluorobiphenyl	131	X	44 - 121	05/14/18 07:18	05/15/18 15:18	1
2,4,6-Tribromophenol	113		25 - 139	05/14/18 07:18	05/15/18 15:18	1
Terphenyl-d14	132		35 - 160	05/14/18 07:18	05/15/18 15:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Arsenic	3.8		0.60	0.21	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Barium	63		0.60	0.068	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Beryllium	0.69		0.24	0.056	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Boron	4.3		3.0	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Cadmium	0.098	J B	0.12	0.022	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Calcium	5400	B	12	2.0	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Chromium	18		0.60	0.30	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Cobalt	7.3		0.30	0.079	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Copper	15		0.60	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Iron	15000	B	12	6.2	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Lead	9.9		0.30	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Magnesium	5000		6.0	3.0	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Manganese	210		0.60	0.087	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Nickel	25		0.60	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Potassium	1300		30	11	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Selenium	1.0		0.60	0.35	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Silver	0.41		0.30	0.077	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Sodium	500		60	8.9	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Vanadium	27		0.30	0.071	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1
Zinc	46		1.2	0.53	mg/Kg	☼	05/10/18 07:52	05/11/18 04:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.54		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:50	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:50	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:50	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:50	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:50	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:50	1
Manganese	0.50		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:50	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:50	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:50	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:50	1
Zinc	0.15	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:50	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.4		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 06:33	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:53	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0061	mg/Kg	☼	05/15/18 21:35	05/16/18 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/10/18 18:38	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Chloroethane	<0.0045	*	0.0045	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 06:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	05/05/18 08:30	05/15/18 06:07	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 06:07	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/05/18 08:30	05/15/18 06:07	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 06:07	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133	05/14/18 07:18	05/15/18 15:46	1
Phenol-d5	112		46 - 125	05/14/18 07:18	05/15/18 15:46	1
Nitrobenzene-d5	102		41 - 120	05/14/18 07:18	05/15/18 15:46	1
2-Fluorobiphenyl	110		44 - 121	05/14/18 07:18	05/15/18 15:46	1
2,4,6-Tribromophenol	106		25 - 139	05/14/18 07:18	05/15/18 15:46	1
Terphenyl-d14	132		35 - 160	05/14/18 07:18	05/15/18 15:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Arsenic	3.5		0.55	0.19	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Barium	120		0.55	0.062	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Beryllium	0.52		0.22	0.051	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Boron	2.1 J		2.7	0.26	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Cadmium	0.18 B		0.11	0.020	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Calcium	4200 B		11	1.9	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Chromium	13		0.55	0.27	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Cobalt	8.4		0.27	0.072	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Copper	8.1		0.55	0.15	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Iron	12000 B		11	5.7	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Lead	12		0.27	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Magnesium	2900		5.5	2.7	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Manganese	900		0.55	0.079	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Nickel	12		0.55	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Potassium	590		27	9.7	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Selenium	1.2		0.55	0.32	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Silver	0.24 J		0.27	0.071	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Sodium	320		55	8.1	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Vanadium	30		0.27	0.065	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1
Zinc	36		1.1	0.48	mg/Kg	☼	05/10/18 07:52	05/11/18 05:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.32 J		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:54	1
Boron	0.056 J		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:54	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:54	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:54	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:54	1
Iron	0.23	J	0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:54	1
Manganese	0.017	J	0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:54	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:54	1
Selenium	0.020	J	0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:54	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:54	1
Zinc	<0.50		0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:54	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0058	mg/Kg	☼	05/15/18 21:35	05/16/18 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/10/18 18:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 90.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.015	J	0.017	0.0073	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Chloroethane	<0.0042	*	0.0042	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 06:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/05/18 08:30	05/15/18 06:34	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 06:34	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 134	05/05/18 08:30	05/15/18 06:34	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 06:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 90.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Methylnaphthalene	<0.072		0.072	0.0065	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4-Dinitrophenol	<0.72		0.72	0.62	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Hexachlorobenzene	<0.072		0.072	0.0082	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.28	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Phenanthrene	0.017	J	0.035	0.0049	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Fluoranthene	0.028	J	0.035	0.0066	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Pyrene	0.028	J	0.035	0.0070	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Benzo[a]anthracene	0.018	J	0.035	0.0048	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 90.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.025	J	0.035	0.0097	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Benzo[b]fluoranthene	0.036		0.035	0.0077	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Benzo[a]pyrene	0.021	J	0.035	0.0069	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.035	0.0092	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Benzo[g,h,i]perylene	0.012	J	0.035	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/14/18 07:18	05/15/18 17:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	119		46 - 133				05/14/18 07:18	05/15/18 17:12	1
Phenol-d5	114		46 - 125				05/14/18 07:18	05/15/18 17:12	1
Nitrobenzene-d5	100		41 - 120				05/14/18 07:18	05/15/18 17:12	1
2-Fluorobiphenyl	114		44 - 121				05/14/18 07:18	05/15/18 17:12	1
2,4,6-Tribromophenol	113		25 - 139				05/14/18 07:18	05/15/18 17:12	1
Terphenyl-d14	149		35 - 160				05/14/18 07:18	05/15/18 17:12	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.92		0.92	0.18	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Arsenic	1.7		0.46	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Barium	12		0.46	0.052	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Beryllium	0.24		0.18	0.043	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Boron	6.0		2.3	0.21	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Cadmium	0.21	B	0.092	0.016	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Calcium	83000	B	92	16	mg/Kg	☼	05/10/18 07:52	05/12/18 02:01	10
Chromium	6.6		0.46	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Cobalt	3.7		0.23	0.060	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Copper	10		0.46	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Iron	6600	B	9.2	4.8	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Lead	41		0.23	0.11	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Magnesium	37000		4.6	2.3	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Manganese	180		0.46	0.066	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Nickel	7.1		0.46	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Potassium	470		23	8.1	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Selenium	0.36	J	0.46	0.27	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Silver	0.071	J	0.23	0.059	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Sodium	230		46	6.8	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Thallium	<0.46		0.46	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Vanadium	12		0.23	0.054	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1
Zinc	40		0.92	0.40	mg/Kg	☼	05/10/18 07:52	05/11/18 05:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.16	J	0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/15/18 00:06	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 90.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0024	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Lead	0.0077		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Manganese	0.63		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:06	1
Zinc	0.055	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:06	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.042		0.0075	0.0075	mg/L	-	05/11/18 15:29	05/15/18 06:41	1
Manganese	0.11		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 06:41	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 19:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 19:00	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0096	J	0.018	0.0059	mg/Kg	☼	05/15/18 21:35	05/16/18 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU	-		05/10/18 18:54	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0091	J	0.016	0.0071	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/05/18 08:30	05/15/18 07:00	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 07:00	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 07:00	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 07:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	140	X	46 - 133	05/14/18 07:18	05/15/18 13:24	1
Phenol-d5	126	X	46 - 125	05/14/18 07:18	05/15/18 13:24	1
Nitrobenzene-d5	97		41 - 120	05/14/18 07:18	05/15/18 13:24	1
2-Fluorobiphenyl	117		44 - 121	05/14/18 07:18	05/15/18 13:24	1
2,4,6-Tribromophenol	123		25 - 139	05/14/18 07:18	05/15/18 13:24	1
Terphenyl-d14	135		35 - 160	05/14/18 07:18	05/15/18 13:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Arsenic	4.3		0.57	0.20	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Barium	39		0.57	0.066	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Beryllium	0.46		0.23	0.054	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Boron	3.1		2.9	0.27	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Cadmium	0.16	B	0.11	0.021	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Calcium	17000	B	11	1.9	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Chromium	16		0.57	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Cobalt	4.2		0.29	0.075	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Copper	16		0.57	0.16	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Iron	15000	B	11	6.0	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Lead	7.9		0.29	0.13	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Magnesium	11000		5.7	2.9	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Manganese	73		0.57	0.083	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Nickel	13		0.57	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Potassium	610		29	10	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Selenium	1.3		0.57	0.34	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Silver	0.20	J	0.29	0.074	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Sodium	230		57	8.5	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Vanadium	46		0.29	0.068	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1
Zinc	33		1.1	0.50	mg/Kg	☼	05/10/18 07:52	05/11/18 05:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:10	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/15/18 00:10	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/15/18 00:10	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/15/18 00:10	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/15/18 00:10	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/15/18 00:10	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/15/18 00:10	1
Manganese	0.32		0.025	0.010	mg/L		05/11/18 15:25	05/15/18 00:10	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/15/18 00:10	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/15/18 00:10	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/15/18 00:10	1
Zinc	<0.50		0.50	0.020	mg/L		05/11/18 15:25	05/15/18 00:10	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 06:45	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 19:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 19:03	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0059	mg/Kg	☼	05/15/18 21:35	05/16/18 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU			05/10/18 18:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)D

Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 81.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Chloroethane	<0.0043	*	0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/05/18 08:30	05/15/18 07:26	1
Dibromofluoromethane	82		75 - 126	05/05/18 08:30	05/15/18 07:26	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 07:26	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 07:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1

TestAmerica Chicago

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Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 81.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1

TestAmerica Chicago

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Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 81.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	05/14/18 07:18	05/15/18 13:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	126		46 - 133				05/14/18 07:18	05/15/18 13:52	1
Phenol-d5	113		46 - 125				05/14/18 07:18	05/15/18 13:52	1
Nitrobenzene-d5	126	X	41 - 120				05/14/18 07:18	05/15/18 13:52	1
2-Fluorobiphenyl	115		44 - 121				05/14/18 07:18	05/15/18 13:52	1
2,4,6-Tribromophenol	119		25 - 139				05/14/18 07:18	05/15/18 13:52	1
Terphenyl-d14	132		35 - 160				05/14/18 07:18	05/15/18 13:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Arsenic	2.3		0.59	0.20	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Barium	49		0.59	0.068	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Beryllium	0.51		0.24	0.055	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Boron	3.4		3.0	0.28	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Cadmium	0.13	B	0.12	0.021	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Calcium	15000	B	12	2.0	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Chromium	16		0.59	0.29	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Cobalt	3.7		0.30	0.078	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Copper	16		0.59	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Iron	12000	B	12	6.2	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Lead	9.6		0.30	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Magnesium	9800		5.9	2.9	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Manganese	74		0.59	0.086	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Nickel	13		0.59	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Potassium	690		30	10	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Selenium	1.2		0.59	0.35	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Silver	0.21	J	0.30	0.076	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Sodium	280		59	8.8	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Thallium	<0.59		0.59	0.30	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Vanadium	35		0.30	0.070	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1
Zinc	37		1.2	0.52	mg/Kg	☼	05/10/18 07:52	05/11/18 05:12	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/15/18 00:14	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:14	1

TestAmerica Chicago

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Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

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Percent Solids: 81.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Manganese	0.31		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:14	1
Zinc	0.13	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:14	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.18		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 06:49	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 19:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 19:07	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 16:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.020	0.0067	mg/Kg	☼	05/15/18 21:35	05/16/18 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU	-		05/10/18 19:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 07:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/05/18 08:30	05/15/18 07:53	1
Dibromofluoromethane	83		75 - 126	05/05/18 08:30	05/15/18 07:53	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 07:53	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 07:53	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Fluoranthene	0.0077	J	0.038	0.0070	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/14/18 07:18	05/15/18 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	120		46 - 133				05/14/18 07:18	05/15/18 14:49	1
Phenol-d5	110		46 - 125				05/14/18 07:18	05/15/18 14:49	1
Nitrobenzene-d5	92		41 - 120				05/14/18 07:18	05/15/18 14:49	1
2-Fluorobiphenyl	109		44 - 121				05/14/18 07:18	05/15/18 14:49	1
2,4,6-Tribromophenol	121		25 - 139				05/14/18 07:18	05/15/18 14:49	1
Terphenyl-d14	128		35 - 160				05/14/18 07:18	05/15/18 14:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.99		0.99	0.19	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Arsenic	2.8		0.49	0.17	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Barium	33		0.49	0.056	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Beryllium	0.29		0.20	0.046	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Boron	3.5		2.5	0.23	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Cadmium	0.18	B	0.099	0.018	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Calcium	85000	B	99	17	mg/Kg	☼	05/10/18 07:52	05/12/18 02:05	10
Chromium	10		0.49	0.24	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Cobalt	3.7		0.25	0.065	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Copper	5.7		0.49	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Iron	9600	B	9.9	5.1	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Lead	8.3		0.25	0.11	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Magnesium	33000		4.9	2.5	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Manganese	250		0.49	0.072	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Nickel	8.3		0.49	0.14	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Potassium	760		25	8.7	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Selenium	0.61		0.49	0.29	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Silver	0.14	J	0.25	0.064	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Sodium	97		49	7.3	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Thallium	<0.49		0.49	0.25	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Vanadium	25		0.25	0.058	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1
Zinc	30		0.99	0.43	mg/Kg	☼	05/10/18 07:52	05/11/18 05:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/15/18 00:19	1
Boron	0.056	J	0.50	0.050	mg/L		05/11/18 15:25	05/15/18 00:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 86.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0024	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Manganese	0.17		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/15/18 00:19	1
Zinc	0.029	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/15/18 00:19	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.30		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 07:10	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 19:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 19:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 16:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J F1 F2	0.018	0.0059	mg/Kg	☼	05/15/18 21:35	05/16/18 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU	-		05/10/18 19:10	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

GC/MS VOA

Prep Batch: 430984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	5035	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	5035	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	5035	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	5035	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	5035	
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	5035	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	5035	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	5035	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	5035	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	5035	

Analysis Batch: 432121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	8260B	430984
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	8260B	430984
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	8260B	430984
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	8260B	430984
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	8260B	430984
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	8260B	430984
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	8260B	430984
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	8260B	430984
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	8260B	430984
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	8260B	430984
MB 500-432121/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432121/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432121/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 432067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	3541	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	3541	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	3541	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	3541	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	3541	
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	3541	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	3541	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	3541	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	3541	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	3541	
MB 500-432067/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-432067/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-144977-1 MS	2273V-02-B12 (0-6)	Total/NA	Solid	3541	
500-144977-1 MSD	2273V-02-B12 (0-6)	Total/NA	Solid	3541	

Analysis Batch: 432111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-432067/1-A	Method Blank	Total/NA	Solid	8270D	432067
LCS 500-432067/2-A	Lab Control Sample	Total/NA	Solid	8270D	432067

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

GC/MS Semi VOA (Continued)

Analysis Batch: 432280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	8270D	432067
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	8270D	432067
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	8270D	432067
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	8270D	432067
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	8270D	432067
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	8270D	432067
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	8270D	432067
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	8270D	432067
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	8270D	432067
500-144977-1 MS	2273V-02-B12 (0-6)	Total/NA	Solid	8270D	432067
500-144977-1 MSD	2273V-02-B12 (0-6)	Total/NA	Solid	8270D	432067

Analysis Batch: 432893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	8270D	432067

Metals

Prep Batch: 431557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	3050B	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	3050B	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	3050B	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	3050B	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	3050B	
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	3050B	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	3050B	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	3050B	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	3050B	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	3050B	
MB 500-431557/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431557/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-144977-1 MS	2273V-02-B12 (0-6)	Total/NA	Solid	3050B	
500-144977-1 MSD	2273V-02-B12 (0-6)	Total/NA	Solid	3050B	
500-144977-1 DU	2273V-02-B12 (0-6)	Total/NA	Solid	3050B	

Leach Batch: 431630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	SPLP East	Solid	1312	
500-144977-2	2273V-02-B13 (0-3)	SPLP East	Solid	1312	
500-144977-3	2273V-02-B14 (0-3)	SPLP East	Solid	1312	
500-144977-4	2273V-02-B15 (0-3)	SPLP East	Solid	1312	
500-144977-5	2273V-02-B09 (0-3)	SPLP East	Solid	1312	
500-144977-7	2273V-02-B11 (0-6)	SPLP East	Solid	1312	
500-144977-8	2273V-02-B16 (0-4)	SPLP East	Solid	1312	
500-144977-9	2273V-02-B16 (0-4)D	SPLP East	Solid	1312	
500-144977-10	2273V-02-B17 (0-6)	SPLP East	Solid	1312	
LB 500-431630/1-B	Method Blank	SPLP East	Solid	1312	
500-144977-10 MS	2273V-02-B17 (0-6)	SPLP East	Solid	1312	
500-144977-10 DU	2273V-02-B17 (0-6)	SPLP East	Solid	1312	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Metals (Continued)

Leach Batch: 431642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	1311	
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	1311	
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	1311	
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	1311	
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	1311	
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	1311	
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	1311	
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	1311	
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	1311	
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	1311	
LB 500-431642/1-B	Method Blank	TCLP	Solid	1311	
LB 500-431642/1-C	Method Blank	TCLP	Solid	1311	
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	1311	
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	1311	

Analysis Batch: 431774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	6010B	431557
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	6010B	431557
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	6010B	431557
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	6010B	431557
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	6010B	431557
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	6010B	431557
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	6010B	431557
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	6010B	431557
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	6010B	431557
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	6010B	431557
MB 500-431557/1-A	Method Blank	Total/NA	Solid	6010B	431557
LCS 500-431557/2-A	Lab Control Sample	Total/NA	Solid	6010B	431557
500-144977-1 MS	2273V-02-B12 (0-6)	Total/NA	Solid	6010B	431557
500-144977-1 MSD	2273V-02-B12 (0-6)	Total/NA	Solid	6010B	431557
500-144977-1 DU	2273V-02-B12 (0-6)	Total/NA	Solid	6010B	431557

Prep Batch: 431903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	3010A	431642
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	3010A	431642
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	3010A	431642
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	3010A	431642
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	3010A	431642
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	3010A	431642
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	3010A	431642
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	3010A	431642
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	3010A	431642
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	3010A	431642
LB 500-431642/1-B	Method Blank	TCLP	Solid	3010A	431642
LCS 500-431903/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	3010A	431642
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	3010A	431642

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Metals (Continued)

Prep Batch: 431907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	SPLP East	Solid	3010A	431630
500-144977-2	2273V-02-B13 (0-3)	SPLP East	Solid	3010A	431630
500-144977-3	2273V-02-B14 (0-3)	SPLP East	Solid	3010A	431630
500-144977-4	2273V-02-B15 (0-3)	SPLP East	Solid	3010A	431630
500-144977-5	2273V-02-B09 (0-3)	SPLP East	Solid	3010A	431630
500-144977-7	2273V-02-B11 (0-6)	SPLP East	Solid	3010A	431630
500-144977-8	2273V-02-B16 (0-4)	SPLP East	Solid	3010A	431630
500-144977-9	2273V-02-B16 (0-4)D	SPLP East	Solid	3010A	431630
500-144977-10	2273V-02-B17 (0-6)	SPLP East	Solid	3010A	431630
LB 500-431630/1-B	Method Blank	SPLP East	Solid	3010A	431630
LCS 500-431907/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-144977-10 MS	2273V-02-B17 (0-6)	SPLP East	Solid	3010A	431630
500-144977-10 DU	2273V-02-B17 (0-6)	SPLP East	Solid	3010A	431630

Prep Batch: 431932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	7470A	431642
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	7470A	431642
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	7470A	431642
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	7470A	431642
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	7470A	431642
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	7470A	431642
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	7470A	431642
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	7470A	431642
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	7470A	431642
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431642
LB 500-431642/1-C	Method Blank	TCLP	Solid	7470A	431642
MB 500-431932/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-431932/13-A	Lab Control Sample	Total/NA	Solid	7470A	
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431642
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431642

Analysis Batch: 432052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	6010B	431557
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	6010B	431557
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	6010B	431557
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	6010B	431557

Analysis Batch: 432215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	7470A	431932
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	7470A	431932
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	7470A	431932
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	7470A	431932
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	7470A	431932
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	7470A	431932
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	7470A	431932
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	7470A	431932
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	7470A	431932
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431932

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Metals (Continued)

Analysis Batch: 432215 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 500-431642/1-C	Method Blank	TCLP	Solid	7470A	431932
MB 500-431932/12-A	Method Blank	Total/NA	Solid	7470A	431932
LCS 500-431932/13-A	Lab Control Sample	Total/NA	Solid	7470A	431932
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431932
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	7470A	431932

Analysis Batch: 432243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	6010B	431903
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	6010B	431903
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	6010B	431903
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	6010B	431903
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	6010B	431903
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	6010B	431903
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	6010B	431903
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	6010B	431903
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	6010B	431903
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	6010B	431903
LB 500-431642/1-B	Method Blank	TCLP	Solid	6010B	431903
LCS 500-431903/2-A	Lab Control Sample	Total/NA	Solid	6010B	431903
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	6010B	431903
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	6010B	431903

Analysis Batch: 432285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	SPLP East	Solid	6010B	431907
500-144977-2	2273V-02-B13 (0-3)	SPLP East	Solid	6010B	431907
500-144977-3	2273V-02-B14 (0-3)	SPLP East	Solid	6010B	431907
500-144977-4	2273V-02-B15 (0-3)	SPLP East	Solid	6010B	431907
500-144977-5	2273V-02-B09 (0-3)	SPLP East	Solid	6010B	431907
500-144977-7	2273V-02-B11 (0-6)	SPLP East	Solid	6010B	431907
500-144977-8	2273V-02-B16 (0-4)	SPLP East	Solid	6010B	431907
500-144977-9	2273V-02-B16 (0-4)D	SPLP East	Solid	6010B	431907
500-144977-10	2273V-02-B17 (0-6)	SPLP East	Solid	6010B	431907
LB 500-431630/1-B	Method Blank	SPLP East	Solid	6010B	431907
LCS 500-431907/2-A	Lab Control Sample	Total/NA	Solid	6010B	431907
500-144977-10 MS	2273V-02-B17 (0-6)	SPLP East	Solid	6010B	431907
500-144977-10 DU	2273V-02-B17 (0-6)	SPLP East	Solid	6010B	431907

Analysis Batch: 432289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	TCLP	Solid	6020A	431903
500-144977-2	2273V-02-B13 (0-3)	TCLP	Solid	6020A	431903
500-144977-3	2273V-02-B14 (0-3)	TCLP	Solid	6020A	431903
500-144977-4	2273V-02-B15 (0-3)	TCLP	Solid	6020A	431903
500-144977-5	2273V-02-B09 (0-3)	TCLP	Solid	6020A	431903
500-144977-6	2273V-02-B10 (0-4)	TCLP	Solid	6020A	431903
500-144977-7	2273V-02-B11 (0-6)	TCLP	Solid	6020A	431903
500-144977-8	2273V-02-B16 (0-4)	TCLP	Solid	6020A	431903
500-144977-9	2273V-02-B16 (0-4)D	TCLP	Solid	6020A	431903
500-144977-10	2273V-02-B17 (0-6)	TCLP	Solid	6020A	431903

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Metals (Continued)

Analysis Batch: 432289 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 500-431642/1-B	Method Blank	TCLP	Solid	6020A	431903
LCS 500-431903/2-A	Lab Control Sample	Total/NA	Solid	6020A	431903
500-144977-10 MS	2273V-02-B17 (0-6)	TCLP	Solid	6020A	431903
500-144977-10 DU	2273V-02-B17 (0-6)	TCLP	Solid	6020A	431903

Prep Batch: 432437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	7471B	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	7471B	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	7471B	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	7471B	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	7471B	
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	7471B	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	7471B	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	7471B	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	7471B	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	
MB 500-432437/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-432437/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-144977-10 MS	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	
500-144977-10 MSD	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	
500-144977-10 DU	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	

Analysis Batch: 432612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	7471B	432437
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	7471B	432437
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	7471B	432437
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	7471B	432437
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	7471B	432437
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	7471B	432437
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	7471B	432437
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	7471B	432437
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	7471B	432437
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	432437
MB 500-432437/12-A	Method Blank	Total/NA	Solid	7471B	432437
LCS 500-432437/13-A	Lab Control Sample	Total/NA	Solid	7471B	432437
500-144977-10 MS	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	432437
500-144977-10 MSD	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	432437
500-144977-10 DU	2273V-02-B17 (0-6)	Total/NA	Solid	7471B	432437

General Chemistry

Analysis Batch: 431526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	Moisture	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	Moisture	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	Moisture	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	Moisture	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	Moisture	

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QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

General Chemistry (Continued)

Analysis Batch: 431526 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	Moisture	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	Moisture	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	Moisture	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	Moisture	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	Moisture	

Analysis Batch: 431804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144977-1	2273V-02-B12 (0-6)	Total/NA	Solid	9045D	
500-144977-2	2273V-02-B13 (0-3)	Total/NA	Solid	9045D	
500-144977-3	2273V-02-B14 (0-3)	Total/NA	Solid	9045D	
500-144977-4	2273V-02-B15 (0-3)	Total/NA	Solid	9045D	
500-144977-5	2273V-02-B09 (0-3)	Total/NA	Solid	9045D	
500-144977-6	2273V-02-B10 (0-4)	Total/NA	Solid	9045D	
500-144977-7	2273V-02-B11 (0-6)	Total/NA	Solid	9045D	
500-144977-8	2273V-02-B16 (0-4)	Total/NA	Solid	9045D	
500-144977-9	2273V-02-B16 (0-4)D	Total/NA	Solid	9045D	
500-144977-10	2273V-02-B17 (0-6)	Total/NA	Solid	9045D	
500-144977-6 DU	2273V-02-B10 (0-4)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-144977-1	2273V-02-B12 (0-6)	99	82	84	91
500-144977-2	2273V-02-B13 (0-3)	102	83	81	92
500-144977-3	2273V-02-B14 (0-3)	99	82	83	92
500-144977-4	2273V-02-B15 (0-3)	101	82	86	91
500-144977-5	2273V-02-B09 (0-3)	105	83	85	92
500-144977-6	2273V-02-B10 (0-4)	103	82	85	93
500-144977-7	2273V-02-B11 (0-6)	99	82	82	93
500-144977-8	2273V-02-B16 (0-4)	101	82	84	92
500-144977-9	2273V-02-B16 (0-4)D	104	82	84	93
500-144977-10	2273V-02-B17 (0-6)	101	83	84	92
LCS 500-432121/4	Lab Control Sample	92	81	79	94
LCS 500-432121/5	Lab Control Sample Dup	92	83	78	94
MB 500-432121/6	Method Blank	97	82	80	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (46-133)	PHL (46-125)	NBZ (41-120)	FBP (44-121)	TBP (25-139)	TPHL (35-160)
500-144977-1	2273V-02-B12 (0-6)	120	115	107	116	112	166 X
500-144977-1 MS	2273V-02-B12 (0-6)	121	107	102	107	108	182 X
500-144977-1 MSD	2273V-02-B12 (0-6)	121	112	110	115	116	199 X
500-144977-2	2273V-02-B13 (0-3)	123	115	105	123 X	126	138
500-144977-3	2273V-02-B14 (0-3)	122	111	88	87	118	98
500-144977-4	2273V-02-B15 (0-3)	124	117	108	112	109	149
500-144977-5	2273V-02-B09 (0-3)	120	116	101	131 X	113	132
500-144977-6	2273V-02-B10 (0-4)	124	112	102	110	106	132
500-144977-7	2273V-02-B11 (0-6)	119	114	100	114	113	149
500-144977-8	2273V-02-B16 (0-4)	140 X	126 X	97	117	123	135
500-144977-9	2273V-02-B16 (0-4)D	126	113	126 X	115	119	132
500-144977-10	2273V-02-B17 (0-6)	120	110	92	109	121	128
LCS 500-432067/2-A	Lab Control Sample	105	103	99	92	104	111
MB 500-432067/1-A	Method Blank	104	103	98	95	102	122

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432121/6

Matrix: Solid

Analysis Batch: 432121

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			05/14/18 23:28	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/14/18 23:28	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/14/18 23:28	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/14/18 23:28	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/14/18 23:28	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/14/18 23:28	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/14/18 23:28	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/14/18 23:28	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/14/18 23:28	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/14/18 23:28	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/14/18 23:28	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/14/18 23:28	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/14/18 23:28	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/14/18 23:28	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/14/18 23:28	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/14/18 23:28	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/14/18 23:28	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/14/18 23:28	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/14/18 23:28	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/14/18 23:28	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/14/18 23:28	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/14/18 23:28	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/14/18 23:28	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/14/18 23:28	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/14/18 23:28	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/14/18 23:28	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/14/18 23:28	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/14/18 23:28	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/14/18 23:28	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/14/18 23:28	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/14/18 23:28	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/14/18 23:28	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/14/18 23:28	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/14/18 23:28	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/14/18 23:28	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/14/18 23:28	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/14/18 23:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		75 - 131		05/14/18 23:28	1
Dibromofluoromethane	82		75 - 126		05/14/18 23:28	1
1,2-Dichloroethane-d4 (Surr)	80		70 - 134		05/14/18 23:28	1
Toluene-d8 (Surr)	91		75 - 124		05/14/18 23:28	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432121/4

Matrix: Solid

Analysis Batch: 432121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0425		mg/Kg		85	40 - 150
Benzene	0.0500	0.0412		mg/Kg		82	70 - 125
Bromodichloromethane	0.0500	0.0396		mg/Kg		79	67 - 129
Bromoform	0.0500	0.0446		mg/Kg		89	68 - 136
Bromomethane	0.0500	0.0394		mg/Kg		79	70 - 130
2-Butanone (MEK)	0.0500	0.0372		mg/Kg		74	47 - 138
Carbon disulfide	0.0500	0.0400		mg/Kg		80	70 - 129
Carbon tetrachloride	0.0500	0.0427		mg/Kg		85	75 - 125
Chlorobenzene	0.0500	0.0445		mg/Kg		89	50 - 150
Chloroethane	0.0500	0.0375		mg/Kg		75	75 - 125
Chloroform	0.0500	0.0411		mg/Kg		82	57 - 135
Chloromethane	0.0500	0.0456		mg/Kg		91	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0414		mg/Kg		83	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0438		mg/Kg		88	70 - 125
Dibromochloromethane	0.0500	0.0451		mg/Kg		90	69 - 125
1,1-Dichloroethane	0.0500	0.0425		mg/Kg		85	70 - 125
1,2-Dichloroethane	0.0500	0.0411		mg/Kg		82	70 - 130
1,1-Dichloroethene	0.0500	0.0401		mg/Kg		80	70 - 120
1,2-Dichloropropane	0.0500	0.0410		mg/Kg		82	70 - 125
Ethylbenzene	0.0500	0.0451		mg/Kg		90	61 - 136
2-Hexanone	0.0500	0.0467		mg/Kg		93	48 - 146
Methylene Chloride	0.0500	0.0406		mg/Kg		81	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0480		mg/Kg		96	50 - 148
Methyl tert-butyl ether	0.0500	0.0428		mg/Kg		86	50 - 140
Styrene	0.0500	0.0464		mg/Kg		93	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0448		mg/Kg		90	70 - 122
Tetrachloroethene	0.0500	0.0445		mg/Kg		89	70 - 124
Toluene	0.0500	0.0452		mg/Kg		90	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0412		mg/Kg		82	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0431		mg/Kg		86	70 - 125
1,1,1-Trichloroethane	0.0500	0.0431		mg/Kg		86	70 - 128
1,1,2-Trichloroethane	0.0500	0.0445		mg/Kg		89	70 - 125
Trichloroethene	0.0500	0.0410		mg/Kg		82	70 - 125
Vinyl acetate	0.0500	0.0381		mg/Kg		76	40 - 153
Vinyl chloride	0.0500	0.0451		mg/Kg		90	70 - 125
Xylenes, Total	0.100	0.0919		mg/Kg		92	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	81		75 - 126
1,2-Dichloroethane-d4 (Surr)	79		70 - 134
Toluene-d8 (Surr)	94		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432121/5

Matrix: Solid

Analysis Batch: 432121

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0444		mg/Kg		89	40 - 150	4	30
Benzene	0.0500	0.0416		mg/Kg		83	70 - 125	1	30
Bromodichloromethane	0.0500	0.0407		mg/Kg		81	67 - 129	3	30
Bromoform	0.0500	0.0456		mg/Kg		91	68 - 136	2	30
Bromomethane	0.0500	0.0351		mg/Kg		70	70 - 130	11	30
2-Butanone (MEK)	0.0500	0.0350		mg/Kg		70	47 - 138	6	30
Carbon disulfide	0.0500	0.0407		mg/Kg		81	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0435		mg/Kg		87	75 - 125	2	30
Chlorobenzene	0.0500	0.0453		mg/Kg		91	50 - 150	2	30
Chloroethane	0.0500	0.0335	*	mg/Kg		67	75 - 125	11	30
Chloroform	0.0500	0.0425		mg/Kg		85	57 - 135	3	30
Chloromethane	0.0500	0.0401		mg/Kg		80	70 - 125	13	30
cis-1,2-Dichloroethene	0.0500	0.0424		mg/Kg		85	70 - 125	2	30
cis-1,3-Dichloropropene	0.0500	0.0450		mg/Kg		90	70 - 125	3	30
Dibromochloromethane	0.0500	0.0465		mg/Kg		93	69 - 125	3	30
1,1-Dichloroethane	0.0500	0.0427		mg/Kg		85	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0420		mg/Kg		84	70 - 130	2	30
1,1-Dichloroethene	0.0500	0.0403		mg/Kg		81	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0424		mg/Kg		85	70 - 125	3	30
Ethylbenzene	0.0500	0.0468		mg/Kg		94	61 - 136	4	30
2-Hexanone	0.0500	0.0465		mg/Kg		93	48 - 146	1	30
Methylene Chloride	0.0500	0.0413		mg/Kg		83	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0478		mg/Kg		96	50 - 148	0	30
Methyl tert-butyl ether	0.0500	0.0436		mg/Kg		87	50 - 140	2	30
Styrene	0.0500	0.0475		mg/Kg		95	70 - 125	2	30
1,1,1,2-Tetrachloroethane	0.0500	0.0471		mg/Kg		94	70 - 122	5	30
Tetrachloroethene	0.0500	0.0463		mg/Kg		93	70 - 124	4	30
Toluene	0.0500	0.0467		mg/Kg		93	70 - 125	3	30
trans-1,2-Dichloroethene	0.0500	0.0411		mg/Kg		82	70 - 125	0	30
trans-1,3-Dichloropropene	0.0500	0.0449		mg/Kg		90	70 - 125	4	30
1,1,1-Trichloroethane	0.0500	0.0438		mg/Kg		88	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0464		mg/Kg		93	70 - 125	4	30
Trichloroethene	0.0500	0.0413		mg/Kg		83	70 - 125	1	30
Vinyl acetate	0.0500	0.0380		mg/Kg		76	40 - 153	0	30
Vinyl chloride	0.0500	0.0402		mg/Kg		80	70 - 125	11	30
Xylenes, Total	0.100	0.0946		mg/Kg		95	53 - 147	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	83		75 - 126
1,2-Dichloroethane-d4 (Surr)	78		70 - 134
Toluene-d8 (Surr)	94		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432067/1-A

Matrix: Solid

Analysis Batch: 432111

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.074	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/14/18 07:18	05/14/18 16:03	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432067/1-A
Matrix: Solid
Analysis Batch: 432111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.0578	J	0.17	0.051	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/14/18 07:18	05/14/18 16:03	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/14/18 07:18	05/14/18 16:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		46 - 133	05/14/18 07:18	05/14/18 16:03	1
Phenol-d5	103		46 - 125	05/14/18 07:18	05/14/18 16:03	1
Nitrobenzene-d5	98		41 - 120	05/14/18 07:18	05/14/18 16:03	1
2-Fluorobiphenyl	95		44 - 121	05/14/18 07:18	05/14/18 16:03	1
2,4,6-Tribromophenol	102		25 - 139	05/14/18 07:18	05/14/18 16:03	1
Terphenyl-d14	122		35 - 160	05/14/18 07:18	05/14/18 16:03	1

Lab Sample ID: LCS 500-432067/2-A
Matrix: Solid
Analysis Batch: 432111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.24		mg/Kg		93	56 - 122
Bis(2-chloroethyl)ether	1.33	1.14		mg/Kg		85	55 - 111
1,3-Dichlorobenzene	1.33	1.07		mg/Kg		81	60 - 110
1,4-Dichlorobenzene	1.33	1.07		mg/Kg		80	61 - 110
1,2-Dichlorobenzene	1.33	1.10		mg/Kg		83	62 - 110
2-Methylphenol	1.33	1.14		mg/Kg		85	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.23		mg/Kg		92	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.18		mg/Kg		88	56 - 118
Hexachloroethane	1.33	1.19		mg/Kg		89	61 - 110
2-Chlorophenol	1.33	1.18		mg/Kg		88	64 - 110
Nitrobenzene	1.33	1.11		mg/Kg		83	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.11		mg/Kg		83	60 - 112
1,2,4-Trichlorobenzene	1.33	1.11		mg/Kg		83	62 - 110
Isophorone	1.33	1.35		mg/Kg		101	55 - 110
2,4-Dimethylphenol	1.33	1.26		mg/Kg		95	60 - 110
Hexachlorobutadiene	1.33	1.11		mg/Kg		83	56 - 120
Naphthalene	1.33	1.13		mg/Kg		85	63 - 110
2,4-Dichlorophenol	1.33	1.18		mg/Kg		88	58 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432067/2-A
Matrix: Solid
Analysis Batch: 432111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.15		mg/Kg		86	30 - 150
2,4,6-Trichlorophenol	1.33	1.13		mg/Kg		85	57 - 120
2,4,5-Trichlorophenol	1.33	1.16		mg/Kg		87	50 - 120
Hexachlorocyclopentadiene	1.33	1.00		mg/Kg		75	10 - 106
2-Methylnaphthalene	1.33	1.24		mg/Kg		93	62 - 110
2-Nitroaniline	1.33	1.23		mg/Kg		92	57 - 124
2-Chloronaphthalene	1.33	1.09		mg/Kg		82	64 - 110
4-Chloro-3-methylphenol	1.33	1.15		mg/Kg		86	61 - 114
2,6-Dinitrotoluene	1.33	1.33		mg/Kg		100	67 - 120
2-Nitrophenol	1.33	1.39		mg/Kg		104	60 - 120
3-Nitroaniline	1.33	1.14		mg/Kg		86	40 - 122
Dimethyl phthalate	1.33	1.39		mg/Kg		104	64 - 110
2,4-Dinitrophenol	2.67	0.932		mg/Kg		35	10 - 100
Acenaphthylene	1.33	1.12		mg/Kg		84	60 - 110
2,4-Dinitrotoluene	1.33	1.28		mg/Kg		96	62 - 117
Acenaphthene	1.33	1.06		mg/Kg		79	58 - 110
Dibenzofuran	1.33	1.09		mg/Kg		82	64 - 110
4-Nitrophenol	2.67	2.27		mg/Kg		85	30 - 122
Fluorene	1.33	1.09		mg/Kg		82	62 - 120
4-Nitroaniline	1.33	1.23		mg/Kg		92	60 - 160
4-Bromophenyl phenyl ether	1.33	1.17		mg/Kg		88	63 - 110
Hexachlorobenzene	1.33	1.30		mg/Kg		97	55 - 117
Diethyl phthalate	1.33	1.11		mg/Kg		83	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.11		mg/Kg		83	63 - 110
Pentachlorophenol	2.67	2.27		mg/Kg		85	13 - 112
N-Nitrosodiphenylamine	1.33	1.25		mg/Kg		94	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.55		mg/Kg		58	10 - 110
Phenanthrene	1.33	1.14		mg/Kg		85	62 - 120
Anthracene	1.33	1.16		mg/Kg		87	63 - 110
Carbazole	1.33	1.41		mg/Kg		106	59 - 158
Di-n-butyl phthalate	1.33	1.22		mg/Kg		91	65 - 120
Fluoranthene	1.33	1.30		mg/Kg		97	62 - 120
Pyrene	1.33	1.27		mg/Kg		96	63 - 120
Butyl benzyl phthalate	1.33	1.34		mg/Kg		100	61 - 116
Benzo[a]anthracene	1.33	1.34		mg/Kg		101	63 - 110
Chrysene	1.33	1.59		mg/Kg		119	63 - 120
3,3'-Dichlorobenzidine	1.33	1.27		mg/Kg		95	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.31		mg/Kg		98	63 - 118
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	63 - 119
Benzo[b]fluoranthene	1.33	1.26		mg/Kg		95	62 - 120
Benzo[k]fluoranthene	1.33	1.25		mg/Kg		94	65 - 120
Benzo[a]pyrene	1.33	1.29		mg/Kg		97	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.32		mg/Kg		99	57 - 127
Dibenz(a,h)anthracene	1.33	1.27		mg/Kg		95	64 - 119
Benzo[g,h,i]perylene	1.33	1.36		mg/Kg		102	64 - 120
3 & 4 Methylphenol	1.33	1.17		mg/Kg		87	57 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432067/2-A
Matrix: Solid
Analysis Batch: 432111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432067

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	105		46 - 133
Phenol-d5	103		46 - 125
Nitrobenzene-d5	99		41 - 120
2-Fluorobiphenyl	92		44 - 121
2,4,6-Tribromophenol	104		25 - 139
Terphenyl-d14	111		35 - 160

Lab Sample ID: 500-144977-1 MS
Matrix: Solid
Analysis Batch: 432280

Client Sample ID: 2273V-02-B12 (0-6)
Prep Type: Total/NA
Prep Batch: 432067

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	<0.21		1.65	1.88		mg/Kg	☼	114	56 - 122
Bis(2-chloroethyl)ether	<0.21		1.65	1.79		mg/Kg	☼	108	55 - 111
1,3-Dichlorobenzene	<0.21		1.65	1.56		mg/Kg	☼	95	60 - 110
1,4-Dichlorobenzene	<0.21		1.65	1.57		mg/Kg	☼	95	61 - 110
1,2-Dichlorobenzene	<0.21		1.65	1.58		mg/Kg	☼	96	62 - 110
2-Methylphenol	<0.21		1.65	1.60		mg/Kg	☼	97	60 - 120
2,2'-oxybis[1-chloropropane]	<0.21		1.65	0.927		mg/Kg	☼	56	40 - 124
N-Nitrosodi-n-propylamine	<0.083		1.65	1.31		mg/Kg	☼	80	56 - 118
Hexachloroethane	<0.21		1.65	1.27		mg/Kg	☼	77	61 - 110
2-Chlorophenol	<0.21		1.65	1.70		mg/Kg	☼	103	64 - 110
Nitrobenzene	<0.041		1.65	1.72		mg/Kg	☼	104	60 - 116
Bis(2-chloroethoxy)methane	<0.21		1.65	1.64		mg/Kg	☼	99	60 - 112
1,2,4-Trichlorobenzene	<0.21		1.65	1.71		mg/Kg	☼	104	62 - 110
Isophorone	<0.21		1.65	1.67		mg/Kg	☼	102	55 - 110
2,4-Dimethylphenol	<0.41		1.65	1.68		mg/Kg	☼	102	60 - 110
Hexachlorobutadiene	<0.21		1.65	1.77		mg/Kg	☼	107	56 - 120
Naphthalene	<0.041		1.65	1.65		mg/Kg	☼	100	63 - 110
2,4-Dichlorophenol	<0.41	F1	1.65	1.84		mg/Kg	☼	112	58 - 120
4-Chloroaniline	<0.83		1.65	1.20		mg/Kg	☼	73	30 - 150
2,4,6-Trichlorophenol	<0.41	F1	1.65	1.91		mg/Kg	☼	116	57 - 120
2,4,5-Trichlorophenol	<0.41		1.65	1.83		mg/Kg	☼	111	50 - 120
Hexachlorocyclopentadiene	<0.83	F1	1.65	<0.83	F1	mg/Kg	☼	0	10 - 106
2-Methylnaphthalene	<0.083		1.65	1.70		mg/Kg	☼	103	62 - 110
2-Nitroaniline	<0.21		1.65	1.79		mg/Kg	☼	109	57 - 124
2-Chloronaphthalene	<0.21	F1	1.65	1.72		mg/Kg	☼	105	64 - 110
4-Chloro-3-methylphenol	<0.41	F1	1.65	1.96	F1	mg/Kg	☼	119	61 - 114
2,6-Dinitrotoluene	<0.21		1.65	1.82		mg/Kg	☼	111	67 - 120
2-Nitrophenol	<0.41		1.65	1.92		mg/Kg	☼	117	60 - 120
3-Nitroaniline	<0.41		1.65	1.53		mg/Kg	☼	93	40 - 122
Dimethyl phthalate	<0.21	F1	1.65	1.80		mg/Kg	☼	110	64 - 110
2,4-Dinitrophenol	<0.83		3.29	1.04		mg/Kg	☼	31	10 - 100
Acenaphthylene	<0.041	F1	1.65	1.76		mg/Kg	☼	107	60 - 110
2,4-Dinitrotoluene	<0.21		1.65	1.82		mg/Kg	☼	110	62 - 117
Acenaphthene	<0.041	F1	1.65	1.85	F1	mg/Kg	☼	112	58 - 110
Dibenzofuran	<0.21	F1	1.65	1.83	F1	mg/Kg	☼	111	64 - 110
4-Nitrophenol	<0.83		3.29	3.37		mg/Kg	☼	103	30 - 122

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144977-1 MS

Matrix: Solid

Analysis Batch: 432280

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 432067

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Fluorene	<0.041		1.65	1.83		mg/Kg	☼	111	62 - 120	
4-Nitroaniline	<0.41		1.65	1.56		mg/Kg	☼	95	60 - 160	
4-Bromophenyl phenyl ether	<0.21	F1	1.65	1.78		mg/Kg	☼	108	63 - 110	
Hexachlorobenzene	<0.083	F1	1.65	1.94	F1	mg/Kg	☼	118	55 - 117	
Diethyl phthalate	<0.21		1.65	1.72		mg/Kg	☼	104	58 - 120	
4-Chlorophenyl phenyl ether	<0.21	F1	1.65	1.86	F1	mg/Kg	☼	113	63 - 110	
Pentachlorophenol	<0.83		3.29	1.16		mg/Kg	☼	35	13 - 112	
N-Nitrosodiphenylamine	<0.21	F1	1.65	1.82		mg/Kg	☼	111	65 - 112	
4,6-Dinitro-2-methylphenol	<0.83		3.29	1.32		mg/Kg	☼	40	10 - 110	
Phenanthrene	0.016	J	1.65	1.75		mg/Kg	☼	105	62 - 120	
Anthracene	<0.041	F1	1.65	1.75		mg/Kg	☼	106	63 - 110	
Carbazole	<0.21		1.65	1.96		mg/Kg	☼	119	59 - 158	
Di-n-butyl phthalate	<0.21		1.65	1.81		mg/Kg	☼	110	65 - 120	
Fluoranthene	0.031	J F1	1.65	2.04	F1	mg/Kg	☼	122	62 - 120	
Pyrene	0.033	J F1	1.65	2.65	F1	mg/Kg	☼	159	63 - 120	
Butyl benzyl phthalate	<0.21	F1	1.65	2.62	F1	mg/Kg	☼	159	61 - 116	
Benzo[a]anthracene	0.017	J F1	1.65	1.97	F1	mg/Kg	☼	118	63 - 110	
Chrysene	0.025	J F1	1.65	2.16	F1	mg/Kg	☼	130	63 - 120	
3,3'-Dichlorobenzidine	<0.21	F1	1.65	0.673	F1	mg/Kg	☼	41	49 - 112	
Bis(2-ethylhexyl) phthalate	<0.21	F1	1.65	2.39	F1	mg/Kg	☼	145	63 - 118	
Di-n-octyl phthalate	<0.21		1.65	1.82		mg/Kg	☼	110	63 - 119	
Benzo[b]fluoranthene	0.034	J F1	1.65	2.63	F1	mg/Kg	☼	157	62 - 120	
Benzo[k]fluoranthene	0.016	J F1	1.65	2.40	F1	mg/Kg	☼	145	65 - 120	
Benzo[a]pyrene	<0.041	F1	1.65	2.08	F1	mg/Kg	☼	126	61 - 120	
Indeno[1,2,3-cd]pyrene	0.012	J	1.65	1.14		mg/Kg	☼	69	57 - 127	
Dibenz(a,h)anthracene	<0.041		1.65	1.14		mg/Kg	☼	70	64 - 119	
Benzo[g,h,i]perylene	0.015	J F1	1.65	0.963	F1	mg/Kg	☼	58	64 - 120	
3 & 4 Methylphenol	<0.21		1.65	1.52		mg/Kg	☼	92	57 - 120	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorophenol	121		46 - 133
Phenol-d5	107		46 - 125
Nitrobenzene-d5	102		41 - 120
2-Fluorobiphenyl	107		44 - 121
2,4,6-Tribromophenol	108		25 - 139
Terphenyl-d14	182	X	35 - 160

Lab Sample ID: 500-144977-1 MSD

Matrix: Solid

Analysis Batch: 432280

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 432067

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Phenol	<0.21		1.65	2.01		mg/Kg	☼	122	56 - 122	6	30	
Bis(2-chloroethyl)ether	<0.21		1.65	1.82		mg/Kg	☼	110	55 - 111	2	30	
1,3-Dichlorobenzene	<0.21		1.65	1.63		mg/Kg	☼	99	60 - 110	4	30	
1,4-Dichlorobenzene	<0.21		1.65	1.66		mg/Kg	☼	101	61 - 110	6	30	
1,2-Dichlorobenzene	<0.21		1.65	1.64		mg/Kg	☼	99	62 - 110	4	30	
2-Methylphenol	<0.21		1.65	1.70		mg/Kg	☼	103	60 - 120	6	30	

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144977-1 MSD

Matrix: Solid

Analysis Batch: 432280

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 432067

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
2,2'-oxybis[1-chloropropane]	<0.21		1.65	1.00		mg/Kg	☼	61	40 - 124	8	30
N-Nitrosodi-n-propylamine	<0.083		1.65	1.44		mg/Kg	☼	87	56 - 118	10	30
Hexachloroethane	<0.21		1.65	1.38		mg/Kg	☼	84	61 - 110	8	30
2-Chlorophenol	<0.21		1.65	1.82		mg/Kg	☼	110	64 - 110	7	30
Nitrobenzene	<0.041		1.65	1.81		mg/Kg	☼	109	60 - 116	5	30
Bis(2-chloroethoxy)methane	<0.21		1.65	1.72		mg/Kg	☼	104	60 - 112	5	30
1,2,4-Trichlorobenzene	<0.21		1.65	1.80		mg/Kg	☼	109	62 - 110	5	30
Isophorone	<0.21		1.65	1.76		mg/Kg	☼	107	55 - 110	5	30
2,4-Dimethylphenol	<0.41		1.65	1.76		mg/Kg	☼	106	60 - 110	5	30
Hexachlorobutadiene	<0.21		1.65	1.80		mg/Kg	☼	109	56 - 120	2	30
Naphthalene	<0.041		1.65	1.72		mg/Kg	☼	104	63 - 110	4	30
2,4-Dichlorophenol	<0.41	F1	1.65	2.05	F1	mg/Kg	☼	124	58 - 120	11	30
4-Chloroaniline	<0.83		1.65	1.34		mg/Kg	☼	81	30 - 150	11	30
2,4,6-Trichlorophenol	<0.41	F1	1.65	2.01	F1	mg/Kg	☼	122	57 - 120	5	30
2,4,5-Trichlorophenol	<0.41		1.65	1.90		mg/Kg	☼	115	50 - 120	4	30
Hexachlorocyclopentadiene	<0.83	F1	1.65	<0.83	F1	mg/Kg	☼	0	10 - 106	NC	30
2-Methylnaphthalene	<0.083		1.65	1.79		mg/Kg	☼	108	62 - 110	5	30
2-Nitroaniline	<0.21		1.65	1.91		mg/Kg	☼	116	57 - 124	7	30
2-Chloronaphthalene	<0.21	F1	1.65	1.85	F1	mg/Kg	☼	112	64 - 110	7	30
4-Chloro-3-methylphenol	<0.41	F1	1.65	2.04	F1	mg/Kg	☼	124	61 - 114	4	30
2,6-Dinitrotoluene	<0.21		1.65	1.92		mg/Kg	☼	116	67 - 120	5	30
2-Nitrophenol	<0.41		1.65	1.97		mg/Kg	☼	119	60 - 120	3	30
3-Nitroaniline	<0.41		1.65	1.63		mg/Kg	☼	99	40 - 122	6	30
Dimethyl phthalate	<0.21	F1	1.65	1.94	F1	mg/Kg	☼	118	64 - 110	7	30
2,4-Dinitrophenol	<0.83		3.30	0.989		mg/Kg	☼	30	10 - 100	5	30
Acenaphthylene	<0.041	F1	1.65	1.91	F1	mg/Kg	☼	116	60 - 110	9	30
2,4-Dinitrotoluene	<0.21		1.65	1.89		mg/Kg	☼	115	62 - 117	4	30
Acenaphthene	<0.041	F1	1.65	1.93	F1	mg/Kg	☼	117	58 - 110	4	30
Dibenzofuran	<0.21	F1	1.65	1.93	F1	mg/Kg	☼	117	64 - 110	5	30
4-Nitrophenol	<0.83		3.30	3.67		mg/Kg	☼	111	30 - 122	8	30
Fluorene	<0.041		1.65	1.92		mg/Kg	☼	116	62 - 120	5	30
4-Nitroaniline	<0.41		1.65	1.70		mg/Kg	☼	103	60 - 160	8	30
4-Bromophenyl phenyl ether	<0.21	F1	1.65	1.95	F1	mg/Kg	☼	118	63 - 110	9	30
Hexachlorobenzene	<0.083	F1	1.65	2.05	F1	mg/Kg	☼	124	55 - 117	6	30
Diethyl phthalate	<0.21		1.65	1.80		mg/Kg	☼	109	58 - 120	5	30
4-Chlorophenyl phenyl ether	<0.21	F1	1.65	1.97	F1	mg/Kg	☼	119	63 - 110	6	30
Pentachlorophenol	<0.83		3.30	1.17		mg/Kg	☼	35	13 - 112	1	30
N-Nitrosodiphenylamine	<0.21	F1	1.65	1.91	F1	mg/Kg	☼	116	65 - 112	5	30
4,6-Dinitro-2-methylphenol	<0.83		3.30	1.31		mg/Kg	☼	40	10 - 110	1	30
Phenanthrene	0.016	J	1.65	1.89		mg/Kg	☼	113	62 - 120	8	30
Anthracene	<0.041	F1	1.65	1.88	F1	mg/Kg	☼	113	63 - 110	7	30
Carbazole	<0.21		1.65	2.12		mg/Kg	☼	128	59 - 158	8	30
Di-n-butyl phthalate	<0.21		1.65	1.91		mg/Kg	☼	115	65 - 120	5	30
Fluoranthene	0.031	J F1	1.65	2.07	F1	mg/Kg	☼	123	62 - 120	2	30
Pyrene	0.033	J F1	1.65	2.81	F1	mg/Kg	☼	168	63 - 120	6	30
Butyl benzyl phthalate	<0.21	F1	1.65	2.86	F1	mg/Kg	☼	173	61 - 116	9	30
Benzo[a]anthracene	0.017	J F1	1.65	2.05	F1	mg/Kg	☼	123	63 - 110	4	30
Chrysene	0.025	J F1	1.65	2.24	F1	mg/Kg	☼	134	63 - 120	3	30

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-144977-1 MSD

Matrix: Solid

Analysis Batch: 432280

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 432067

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	MSD		RPD	Limit
	Result	Qualifier		Result	Qualifier				%Rec.	RPD		
3,3'-Dichlorobenzidine	<0.21	F1	1.65	0.737	F1	mg/Kg	☼	45	49 - 112	9	30	
Bis(2-ethylhexyl) phthalate	<0.21	F1	1.65	2.66	F1	mg/Kg	☼	161	63 - 118	11	30	
Di-n-octyl phthalate	<0.21		1.65	1.82		mg/Kg	☼	110	63 - 119	0	30	
Benzo[b]fluoranthene	0.034	J F1	1.65	2.67	F1	mg/Kg	☼	160	62 - 120	2	30	
Benzo[k]fluoranthene	0.016	J F1	1.65	2.59	F1	mg/Kg	☼	156	65 - 120	8	30	
Benzo[a]pyrene	<0.041	F1	1.65	2.15	F1	mg/Kg	☼	130	61 - 120	4	30	
Indeno[1,2,3-cd]pyrene	0.012	J	1.65	1.22		mg/Kg	☼	73	57 - 127	6	30	
Dibenz(a,h)anthracene	<0.041		1.65	1.20		mg/Kg	☼	73	64 - 119	5	30	
Benzo[g,h,i]perylene	0.015	J F1	1.65	1.03	F1	mg/Kg	☼	61	64 - 120	6	30	
3 & 4 Methylphenol	<0.21		1.65	1.65		mg/Kg	☼	100	57 - 120	9	30	

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2-Fluorophenol	121		46 - 133
Phenol-d5	112		46 - 125
Nitrobenzene-d5	110		41 - 120
2-Fluorobiphenyl	115		44 - 121
2,4,6-Tribromophenol	116		25 - 139
Terphenyl-d14	199	X	35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431557/1-A

Matrix: Solid

Analysis Batch: 431774

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 431557

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Barium	<1.0		1.0	0.11	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Boron	<5.0		5.0	0.47	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Cadmium	0.0820	J	0.20	0.036	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Calcium	5.77	J	20	3.4	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Copper	<1.0		1.0	0.28	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Iron	13.4	J	20	10	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Lead	<0.50		0.50	0.23	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Magnesium	<10		10	5.0	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Manganese	<1.0		1.0	0.15	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Potassium	<50		50	18	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Selenium	<1.0		1.0	0.59	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Silver	<0.50		0.50	0.13	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Sodium	<100		100	15	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/10/18 07:52	05/11/18 04:00	1
Zinc	<2.0		2.0	0.88	mg/Kg		05/10/18 07:52	05/11/18 04:00	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Lab Sample ID: LCS 500-431557/2-A
Matrix: Solid
Analysis Batch: 431774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431557
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	46.5		mg/Kg		93	80 - 120
Arsenic	10.0	9.38		mg/Kg		94	80 - 120
Barium	200	194		mg/Kg		97	80 - 120
Beryllium	5.00	4.73		mg/Kg		95	80 - 120
Boron	100	86.6		mg/Kg		87	80 - 120
Cadmium	5.00	4.72		mg/Kg		94	80 - 120
Calcium	1000	965		mg/Kg		97	80 - 120
Chromium	20.0	19.6		mg/Kg		98	80 - 120
Cobalt	50.0	48.5		mg/Kg		97	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	106		mg/Kg		106	80 - 120
Lead	10.0	9.18		mg/Kg		92	80 - 120
Magnesium	1000	917		mg/Kg		92	80 - 120
Manganese	50.0	48.5		mg/Kg		97	80 - 120
Nickel	50.0	48.5		mg/Kg		97	80 - 120
Potassium	1000	968		mg/Kg		97	80 - 120
Selenium	10.0	9.19		mg/Kg		92	80 - 120
Silver	5.00	4.54		mg/Kg		91	80 - 120
Sodium	1000	972		mg/Kg		97	80 - 120
Thallium	10.0	9.11		mg/Kg		91	80 - 120
Vanadium	50.0	49.1		mg/Kg		98	80 - 120
Zinc	50.0	48.4		mg/Kg		97	80 - 120

Lab Sample ID: 500-144977-1 MS
Matrix: Solid
Analysis Batch: 431774

Client Sample ID: 2273V-02-B12 (0-6)
Prep Type: Total/NA
Prep Batch: 431557
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<1.2	F1	27.7	7.97	F1	mg/Kg	☼	29	75 - 125
Arsenic	3.5	F1	5.55	7.20	F1	mg/Kg	☼	67	75 - 125
Barium	57	F1	111	136	F1	mg/Kg	☼	71	75 - 125
Beryllium	0.59		2.77	2.70		mg/Kg	☼	76	75 - 125
Boron	8.2	F1	55.5	43.9	F1	mg/Kg	☼	64	75 - 125
Cadmium	0.19	B	2.77	2.49		mg/Kg	☼	83	75 - 125
Calcium	34000	B	555	47400	E 4	mg/Kg	☼	2434	75 - 125
Chromium	16	F1	11.1	21.8	F1	mg/Kg	☼	53	75 - 125
Cobalt	5.8		27.7	30.8		mg/Kg	☼	90	75 - 125
Copper	12	F1	13.9	20.8	F1	mg/Kg	☼	65	75 - 125
Iron	13000	B	55.5	10000	4	mg/Kg	☼	-6187	75 - 125
Lead	29		5.55	20.3	4	mg/Kg	☼	-156	75 - 125
Magnesium	20000	F2	555	30800	4	mg/Kg	☼	1894	75 - 125
Manganese	300		27.7	280	4	mg/Kg	☼	-77	75 - 125
Nickel	14		27.7	36.2		mg/Kg	☼	82	75 - 125
Potassium	790	F1	555	1530	F1	mg/Kg	☼	134	75 - 125
Selenium	0.73	F1	5.55	5.27		mg/Kg	☼	82	75 - 125
Silver	0.18	J	2.77	2.43		mg/Kg	☼	81	75 - 125
Sodium	1500	F1 F2	555	1670	F1	mg/Kg	☼	31	75 - 125
Thallium	<0.60		5.55	4.24		mg/Kg	☼	76	75 - 125
Vanadium	25		27.7	45.7		mg/Kg	☼	75	75 - 125
Zinc	52	F1	27.7	66.5	F1	mg/Kg	☼	51	75 - 125

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-144977-1 MSD

Matrix: Solid

Analysis Batch: 431774

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 431557

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
Antimony	<1.2	F1	29.3	6.93	F1	mg/Kg	☼	24	75 - 125	14	20
Arsenic	3.5	F1	5.87	7.59	F1	mg/Kg	☼	70	75 - 125	5	20
Barium	57	F1	117	156		mg/Kg	☼	84	75 - 125	14	20
Beryllium	0.59		2.93	2.95		mg/Kg	☼	80	75 - 125	9	20
Boron	8.2	F1	58.7	44.6	F1	mg/Kg	☼	62	75 - 125	2	20
Cadmium	0.19	B	2.93	2.56		mg/Kg	☼	81	75 - 125	3	20
Calcium	34000	B	587	39300	E 4	mg/Kg	☼	911	75 - 125	19	20
Chromium	16	F1	11.7	23.0	F1	mg/Kg	☼	61	75 - 125	6	20
Cobalt	5.8		29.3	33.2		mg/Kg	☼	93	75 - 125	7	20
Copper	12	F1	14.7	23.0		mg/Kg	☼	76	75 - 125	10	20
Iron	13000	B	58.7	10900	4	mg/Kg	☼	-4403	75 - 125	8	20
Lead	29		5.87	24.0	4	mg/Kg	☼	-84	75 - 125	17	20
Magnesium	20000	F2	587	24600	4 F2	mg/Kg	☼	725	75 - 125	23	20
Manganese	300		29.3	310	4	mg/Kg	☼	28	75 - 125	10	20
Nickel	14		29.3	39.7		mg/Kg	☼	89	75 - 125	9	20
Potassium	790	F1	587	1670	F1	mg/Kg	☼	151	75 - 125	9	20
Selenium	0.73	F1	5.87	4.56	F1	mg/Kg	☼	65	75 - 125	14	20
Silver	0.18	J	2.93	2.60		mg/Kg	☼	82	75 - 125	7	20
Sodium	1500	F1 F2	587	2070	F2	mg/Kg	☼	99	75 - 125	22	20
Thallium	<0.60		5.87	4.56		mg/Kg	☼	78	75 - 125	7	20
Vanadium	25		29.3	48.7		mg/Kg	☼	81	75 - 125	6	20
Zinc	52	F1	29.3	74.7		mg/Kg	☼	77	75 - 125	12	20

Lab Sample ID: 500-144977-1 DU

Matrix: Solid

Analysis Batch: 431774

Client Sample ID: 2273V-02-B12 (0-6)

Prep Type: Total/NA

Prep Batch: 431557

Analyte	Sample Result	Sample Qualifier	DU		Unit	D	RPD	Limit
			Result	Qualifier				
Antimony	<1.2	F1	<1.2		mg/Kg	☼	NC	20
Arsenic	3.5	F1	3.17		mg/Kg	☼	9	20
Barium	57	F1	58.3		mg/Kg	☼	2	20
Beryllium	0.59		0.457	F5	mg/Kg	☼	26	20
Boron	8.2	F1	4.15	F3	mg/Kg	☼	66	20
Cadmium	0.19	B	0.245	F5	mg/Kg	☼	26	20
Calcium	34000	B	31000		mg/Kg	☼	9	20
Chromium	16	F1	15.1		mg/Kg	☼	5	20
Cobalt	5.8		5.49		mg/Kg	☼	5	20
Copper	12	F1	10.6		mg/Kg	☼	11	20
Iron	13000	B	11600		mg/Kg	☼	15	20
Lead	29		20.6	F3	mg/Kg	☼	34	20
Magnesium	20000	F2	19400		mg/Kg	☼	5	20
Manganese	300		312		mg/Kg	☼	3	20
Nickel	14		12.2		mg/Kg	☼	10	20
Potassium	790	F1	735		mg/Kg	☼	7	20
Selenium	0.73	F1	0.693		mg/Kg	☼	5	20
Silver	0.18	J	0.194	J	mg/Kg	☼	9	20
Sodium	1500	F1 F2	1450		mg/Kg	☼	3	20
Thallium	<0.60		<0.58		mg/Kg	☼	NC	20

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-144977-1 DU
Matrix: Solid
Analysis Batch: 431774

Client Sample ID: 2273V-02-B12 (0-6)
Prep Type: Total/NA
Prep Batch: 431557

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Vanadium	25		26.0		mg/Kg	✱	4	20
Zinc	52	F1	47.6		mg/Kg	✱	9	20

Lab Sample ID: LCS 500-431903/2-A
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431903
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Beryllium	0.0500	0.0490		mg/L		98	80 - 120
Boron	1.00	0.912		mg/L		91	80 - 120
Cadmium	0.0500	0.0474		mg/L		95	80 - 120
Chromium	0.200	0.182		mg/L		91	80 - 120
Cobalt	0.500	0.470		mg/L		94	80 - 120
Iron	1.00	0.972		mg/L		97	80 - 120
Lead	0.100	0.0892		mg/L		89	80 - 120
Manganese	0.500	0.465		mg/L		93	80 - 120
Nickel	0.500	0.481		mg/L		96	80 - 120
Selenium	0.100	0.0927		mg/L		93	80 - 120
Silver	0.0500	0.0454		mg/L		91	80 - 120
Zinc	0.500	0.471	J	mg/L		94	80 - 120

Lab Sample ID: LCS 500-431907/2-A
Matrix: Solid
Analysis Batch: 432285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431907
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.490		mg/L		98	80 - 120

Lab Sample ID: LB 500-431642/1-B
Matrix: Solid
Analysis Batch: 432243

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431903

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 22:39	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:39	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 22:39	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 22:39	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 22:39	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 22:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 22:39	1
Manganese	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 22:39	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 22:39	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 22:39	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 22:39	1
Zinc	<0.50		0.50	0.020	mg/L		05/11/18 15:25	05/14/18 22:39	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-144977-10 MS

Matrix: Solid

Analysis Batch: 432243

Client Sample ID: 2273V-02-B17 (0-6)

Prep Type: TCLP

Prep Batch: 431903

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Barium	0.37	J	0.500	0.849		mg/L		97	75 - 125
Beryllium	<0.0040		0.0500	0.0543		mg/L		109	75 - 125
Boron	0.056	J	1.00	0.955		mg/L		90	75 - 125
Cadmium	0.0024	J	0.0500	0.0562		mg/L		108	75 - 125
Chromium	<0.025		0.200	0.188		mg/L		94	75 - 125
Cobalt	<0.025		0.500	0.507		mg/L		101	75 - 125
Iron	<0.40		1.00	1.06		mg/L		106	75 - 125
Lead	<0.0075		0.100	0.0868		mg/L		87	75 - 125
Manganese	0.17		0.500	0.655		mg/L		97	75 - 125
Nickel	<0.025		0.500	0.517		mg/L		103	75 - 125
Selenium	<0.050		0.100	0.117		mg/L		117	75 - 125
Silver	<0.025		0.0500	0.0599		mg/L		120	75 - 125
Zinc	0.029	J	0.500	0.589		mg/L		112	75 - 125

Lab Sample ID: 500-144977-10 DU

Matrix: Solid

Analysis Batch: 432243

Client Sample ID: 2273V-02-B17 (0-6)

Prep Type: TCLP

Prep Batch: 431903

Analyte	Sample	Sample	DU DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Barium	0.37	J	0.354	J	mg/L		3	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.056	J	0.0555	J	mg/L		0.8	20
Cadmium	0.0024	J	0.00200	J	mg/L		17	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	0.17		0.167		mg/L		3	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	0.029	J	0.0278	J	mg/L		4	20

Lab Sample ID: LB 500-431630/1-B

Matrix: Solid

Analysis Batch: 432285

Client Sample ID: Method Blank

Prep Type: SPLP East

Prep Batch: 431907

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:29	05/15/18 05:24	1
Manganese	<0.025		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 05:24	1

Lab Sample ID: 500-144977-10 MS

Matrix: Solid

Analysis Batch: 432285

Client Sample ID: 2273V-02-B17 (0-6)

Prep Type: SPLP East

Prep Batch: 431907

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Lead	0.010		0.100	0.106		mg/L		96	75 - 125
Manganese	0.30		0.500	0.827		mg/L		105	75 - 125

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-144977-10 DU
Matrix: Solid
Analysis Batch: 432285

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: SPLP East
Prep Batch: 431907

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Lead	0.010		<0.0075		mg/L		NC	20
Manganese	0.30		0.294		mg/L		3	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-431903/2-A
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431903
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Prepared	Analyzed
Antimony	0.500	0.499		mg/L		100	05/11/18 15:25	05/14/18 17:55
Thallium	0.100	0.102		mg/L		102	05/11/18 15:25	05/14/18 17:55

Lab Sample ID: LB 500-431642/1-B
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431903

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 17:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 17:55	1

Lab Sample ID: 500-144977-10 MS
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: TCLP
Prep Batch: 431903
%Rec.

Analyte	Sample	Sample	Spike Added	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Antimony	<0.0060		0.500	0.532		mg/L		106	75 - 125
Thallium	<0.0020		0.100	0.0963		mg/L		96	75 - 125

Lab Sample ID: 500-144977-10 DU
Matrix: Solid
Analysis Batch: 432289

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: TCLP
Prep Batch: 431903

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-431932/12-A
Matrix: Solid
Analysis Batch: 432215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431932

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:21	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 7470A - TCLP Mercury (Continued)

Lab Sample ID: LCS 500-431932/13-A
Matrix: Solid
Analysis Batch: 432215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: LB 500-431642/1-C
Matrix: Solid
Analysis Batch: 432215

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 431932

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000233		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:28	1

Lab Sample ID: 500-144977-10 MS
Matrix: Solid
Analysis Batch: 432215

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: TCLP
Prep Batch: 431932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.000978		mg/L		98	75 - 125

Lab Sample ID: 500-144977-10 DU
Matrix: Solid
Analysis Batch: 432215

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: TCLP
Prep Batch: 431932

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-432437/12-A
Matrix: Solid
Analysis Batch: 432612

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/15/18 21:35	05/16/18 11:37	1

Lab Sample ID: LCS 500-432437/13-A
Matrix: Solid
Analysis Batch: 432612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.153		mg/Kg		91	80 - 120

Lab Sample ID: 500-144977-10 MS
Matrix: Solid
Analysis Batch: 432612

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: Total/NA
Prep Batch: 432437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.014	J F1 F2	0.0882	0.0997		mg/Kg	☼	97	75 - 125

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 500-144977-10 MSD
Matrix: Solid
Analysis Batch: 432612

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: Total/NA
Prep Batch: 432437

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	0.014	J F1 F2	0.0850	0.174	F1 F2	mg/Kg	☼	189	75 - 125	54	20

Lab Sample ID: 500-144977-10 DU
Matrix: Solid
Analysis Batch: 432612

Client Sample ID: 2273V-02-B17 (0-6)
Prep Type: Total/NA
Prep Batch: 432437

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.014	J F1 F2	0.104	F3	mg/Kg	☼	153	20

Method: 9045D - pH

Lab Sample ID: 500-144977-6 DU
Matrix: Solid
Analysis Batch: 431804

Client Sample ID: 2273V-02-B10 (0-4)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.8		7.79		SU		0.5	



Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:17	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:33	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 18:39	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:47	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804		IEL	TAL CHI
					(Start)	05/10/18 18:16		
					(End)	05/10/18 18:22		
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B12 (0-6)

Lab Sample ID: 500-144977-1

Date Collected: 05/04/18 10:15

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 03:55	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 17:40	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 04:16	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 13:56	EEN	TAL CHI

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:21	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:37	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	432289	05/14/18 18:43	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:49	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	(Start) 05/10/18 18:22 (End) 05/10/18 18:27	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B13 (0-3)

Lab Sample ID: 500-144977-2

Date Collected: 05/04/18 10:40

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 04:22	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 16:15	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432052	05/12/18 01:53	EEN	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 04:36	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 13:58	EEN	TAL CHI

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:25	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:42	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 18:46	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:50	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	431804	05/10/18 18:27 (Start) 05/10/18 18:32 (End)	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B14 (0-3)

Lab Sample ID: 500-144977-3

Date Collected: 05/04/18 10:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 04:48	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432893	05/18/18 10:34	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432052	05/12/18 01:57	EEN	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 04:40	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:01	EEN	TAL CHI

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:29	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:46	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 18:50	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:52	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	05/10/18 18:32 (Start) 05/10/18 18:38 (End)	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B15 (0-3)

Lab Sample ID: 500-144977-4

Date Collected: 05/04/18 11:00

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 05:15	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 16:43	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 04:45	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:03	EEN	TAL CHI

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:33	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:50	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 18:53	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:53	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	(Start) 05/10/18 18:38 (End) 05/10/18 18:43	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B09 (0-3)

Lab Sample ID: 500-144977-5

Date Collected: 05/04/18 13:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 05:41	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 15:18	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 04:48	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:06	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/14/18 23:54	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 18:57	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:55	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804		IEL	TAL CHI
					(Start)	05/10/18 18:43		
					(End)	05/10/18 18:48		
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B10 (0-4)

Lab Sample ID: 500-144977-6

Date Collected: 05/04/18 13:20

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 06:07	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 15:46	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 05:00	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:08	EEN	TAL CHI

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:41	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/15/18 00:06	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 19:00	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	7470A		1	432215	05/14/18 15:57	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	05/10/18 18:54 (Start) 05/10/18 18:59 (End)	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B11 (0-6)

Lab Sample ID: 500-144977-7

Date Collected: 05/04/18 13:35

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 06:34	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 17:12	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432052	05/12/18 02:01	EEN	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 05:04	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:10	EEN	TAL CHI

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:45	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/15/18 00:10	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 19:03	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 15:58	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	05/10/18 18:59 (Start) 05/10/18 19:04 (End)	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B16 (0-4)

Lab Sample ID: 500-144977-8

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 07:00	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 13:24	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 05:08	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:12	EEN	TAL CHI

Client Sample ID: 2273V-02-B16 (0-4)D

Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 06:49	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/15/18 00:14	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 19:07	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 16:00	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804	(Start) 05/10/18 19:04 (End) 05/10/18 19:10	IEL	TAL CHI
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B16 (0-4)D

Lab Sample ID: 500-144977-9

Date Collected: 05/04/18 14:10

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 07:26	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 13:52	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 05:12	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:21	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			431630	05/10/18 10:54	JLC	TAL CHI
SPLP East	Prep	3010A			431907	05/11/18 15:29	BDE	TAL CHI
SPLP East	Analysis	6010B		1	432285	05/15/18 07:10	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6010B		1	432243	05/15/18 00:19	EEN	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	3010A			431903	05/11/18 15:25	BDE	TAL CHI
TCLP	Analysis	6020A		1	432289	05/14/18 19:17	FXG	TAL CHI
TCLP	Leach	1311			431642	05/10/18 13:30	SAH	TAL CHI
TCLP	Prep	7470A			431932	05/11/18 17:40	PFK	TAL CHI
TCLP	Analysis	7470A		1	432215	05/14/18 16:01	PFK	TAL CHI
Total/NA	Analysis	9045D		1	431804		IEL	TAL CHI
					(Start)	05/10/18 19:10		
					(End)	05/10/18 19:15		
Total/NA	Analysis	Moisture		1	431526	05/10/18 07:32	LWN	TAL CHI

Client Sample ID: 2273V-02-B17 (0-6)

Lab Sample ID: 500-144977-10

Date Collected: 05/04/18 14:50

Matrix: Solid

Date Received: 05/05/18 17:22

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			430984	05/05/18 08:30	DJD	TAL CHI
Total/NA	Analysis	8260B		1	432121	05/15/18 07:53	DJD	TAL CHI
Total/NA	Prep	3541			432067	05/14/18 07:18	STW	TAL CHI
Total/NA	Analysis	8270D		1	432280	05/15/18 14:49	AJD	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		10	432052	05/12/18 02:05	EEN	TAL CHI
Total/NA	Prep	3050B			431557	05/10/18 07:52	JEF	TAL CHI
Total/NA	Analysis	6010B		1	431774	05/11/18 05:16	EEN	TAL CHI
Total/NA	Prep	7471B			432437	05/15/18 21:35	PFK	TAL CHI
Total/NA	Analysis	7471B		1	432612	05/16/18 14:24	EEN	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144977-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D Treibert
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-144977
 Chain of Custody Number: _____
 Page 81 of 1
 Temperature °C of Cooler: 2.1

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EPE		1009341.0041.02								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Comments	
FAP 525 (4520)		R Wright		Date	Time						
Project Location/State		Lab PM									
McHenry Co, IL		R Wright									
Sampler											
E Fisher											
1		2273V-02-B12(0-6)		5/4/18	1015	2	5	X	X	X	X
2		2273V-02-B13(0-3)			1040	2	5	X	X	X	X
3		2273V-02-B14(0-3)			1050	2	5	X	X	X	X
4		2273V-02-B15(0-3)			1100	2	5	X	X	X	X
5		2273V-02-B09(0-3)			1310	2	5	X	X	X	X
6		2273V-02-B10(0-4)			1320	2	5	X	X	X	X
7		2273V-02-B11(0-6)			1335	2	5	X	X	X	X
8		2273V-02-B16(0-4)			1410	2	5	X	X	X	X
9		2273V-02-B16(0-4)D			1410	2	5	X	X	X	X
10		2273V-02-B17(0-6)			1450	2	5	X	X	X	X

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company: EPE Date: 5/4/18 Time: 1515	Received By <u>[Signature]</u> Company: TA Date: 5/4/18 Time: 1515	Lab Courier <input checked="" type="checkbox"/>
Relinquished By <u>[Signature]</u> Company: TA Date: 5/4/18 Time: 1722	Received By <u>[Signature]</u> Company: TA Date: 05/04/18 Time: 1722	Shipped <input type="checkbox"/>
Relinquished By Company: _____ Date: _____ Time: _____	Received By Company: _____ Date: _____ Time: _____	Hand Delivered <input type="checkbox"/>

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:



500-144977 COC

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144977-1

Login Number: 144977

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-145298-2
Client Project/Site: IDOT - 176-001-WO041
Revision: 1

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
7/19/2019 2:56:51 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com
Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Job ID: 500-145298-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-145298-2

Revised Report

Revision added to correct the client id prefix from 2956V to 2273V for samples 1 thru 12 per chains of custody.

Receipt

The samples were received on 5/10/2018 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.3° C and 4.8° C.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following samples were outside the upper control limit: 2956V-02-B18 (0-6) (500-145298-5) and 2956V-02-B22 (0-5) (500-145298-9). This sample did not contain any target analytes; therefore, re-analysis was not performed.

Method(s) 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 432916 recovered outside control limits for the following analytes: Vinyl Acetate and Methyl Ethyl-Ketone.

Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 432916 recovered outside control limits for the following analytes: 1,1-Dichloroethene and Methyl Ethyl-Ketone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2956V-02-B20 (0-4) (500-145298-7), 2956V-02-B22 (0-5) (500-145298-9), 2956V-02-B23 (0-6) (500-145298-10) and , (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The following matrix spike (MS) recovered at 0% for one analyte: 2,4-Dinitrophenol. The associated MSD was within limits for this analyte. Data has been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-431918 and analytical batch 500-432522 contained Zinc above the reporting limit (RL). Associated samples 2956V-02-B18 (0-6) (500-145298-5), 2956V-02-B19 (0-6) (500-145298-6), 2956V-02-B20 (0-4) (500-145298-7), 2956V-02-B21 (0-4) (500-145298-8), 2956V-02-B22 (0-5) (500-145298-9), 2956V-02-B23 (0-6) (500-145298-10), 2956V-02-B24 (0-6) (500-145298-11), 2956V-02-B25 (0-5) (500-145298-12) and (500-145298-E-1-A) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.0095	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.018	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0098	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.013	J	0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.020	J	0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.8		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	3.7	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	14		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.6		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	200	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	670		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	31	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.060	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.034	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.40		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.018		0.017	0.0074	mg/Kg	1	☼	8260B	Total/NA
Pyrene	0.0074	J	0.035	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0061	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.035	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.014	J	0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.8		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.23		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	3.3	B	2.5	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	89000	B	100	17	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.0		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.4		0.25	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	5.9		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6) (Continued)

Lab Sample ID: 500-145298-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	7000	B	10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	210	B	0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.8		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	540		25	9.0	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		51	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	20	B	1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.051	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.40		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.016	0.0054	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.011	J	0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.4		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	19		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.25		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.0	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	80000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	7.8		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.8		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	6.7		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	6800	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	8.0		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	150	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.4		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	670		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.091	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	17	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0088	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.016	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4) (Continued)

Lab Sample ID: 500-145298-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.015	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.010	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.020	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.4		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	67		0.59	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.48		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	4.3	B	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.44	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	20000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.2		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		30	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.17	J	0.30	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	220	B	1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.068	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.52		0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.22		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	2.6	J B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	3100	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.7		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	7.5		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	9.2		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1900		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.5		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	520		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B22 (0-5) (Continued)

Lab Sample ID: 500-145298-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.17	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	64		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	27	B	1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	1.1		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.047		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.017	J	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.010	J	0.018	0.0078	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.1		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.57	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	4.1	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	6400	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.8		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	8.1		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	6.0		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4600		5.7	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	260	B	0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	850		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	72		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	22	B	1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.35		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.022		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.3		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.6	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6) (Continued)

Lab Sample ID: 500-145298-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	6.0		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	7.8		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	190	B	0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	990		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Silver	0.31		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.27	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	31		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	33	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.098		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.020	0.0087	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.7		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	73		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	3.9	B	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	9900	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.30	0.080	mg/Kg	1	☼	6010B	Total/NA
Copper	9.2		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	14000	B	12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6400		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	200	B	0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	800		30	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	30		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	33	B	1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.093	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019	J	0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-145298-5	2273V-02-B18 (0-6)	Solid	05/10/18 09:00	05/10/18 18:00	
500-145298-6	2273V-02-B19 (0-6)	Solid	05/10/18 09:17	05/10/18 18:00	
500-145298-7	2273V-02-B20 (0-4)	Solid	05/10/18 09:47	05/10/18 18:00	
500-145298-8	2273V-02-B21 (0-4)	Solid	05/10/18 09:55	05/10/18 18:00	
500-145298-9	2273V-02-B22 (0-5)	Solid	05/10/18 10:05	05/10/18 18:00	
500-145298-10	2273V-02-B23 (0-6)	Solid	05/10/18 10:33	05/10/18 18:00	
500-145298-11	2273V-02-B24 (0-6)	Solid	05/10/18 11:25	05/10/18 18:00	
500-145298-12	2273V-02-B25 (0-5)	Solid	05/10/18 11:30	05/10/18 18:00	

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Bromodichloromethane	<0.0018		0.0018	0.00038	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
2-Butanone (MEK)	<0.0046	*	0.0046	0.0020	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,1-Dichloroethene	<0.0018	*	0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Vinyl acetate	<0.0046	*	0.0046	0.0016	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	05/11/18 07:40	05/18/18 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	05/11/18 07:40	05/18/18 11:50	1
Dibromofluoromethane	112		75 - 126	05/11/18 07:40	05/18/18 11:50	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	05/11/18 07:40	05/18/18 11:50	1
Toluene-d8 (Surr)	142	X	75 - 124	05/11/18 07:40	05/18/18 11:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 87.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Anthracene	0.0095	J	0.036	0.0061	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Fluoranthene	0.018	J	0.036	0.0067	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Pyrene	0.015	J	0.036	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Benzo[a]anthracene	0.0098	J	0.036	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 87.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.013	J	0.036	0.0099	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Benzo[b]fluoranthene	0.020	J	0.036	0.0078	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 19:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	132		46 - 133				05/21/18 07:31	05/22/18 19:48	1
Phenol-d5	93		46 - 125				05/21/18 07:31	05/22/18 19:48	1
Nitrobenzene-d5	92		41 - 120				05/21/18 07:31	05/22/18 19:48	1
2-Fluorobiphenyl	91		44 - 121				05/21/18 07:31	05/22/18 19:48	1
2,4,6-Tribromophenol	123		25 - 139				05/21/18 07:31	05/22/18 19:48	1
Terphenyl-d14	103		35 - 160				05/21/18 07:31	05/22/18 19:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Arsenic	2.8		0.55	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Barium	26		0.55	0.062	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Beryllium	0.28		0.22	0.051	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Boron	3.7	B	2.7	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Cadmium	0.21	B	0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Calcium	54000	B	110	19	mg/Kg	☼	05/11/18 17:09	05/16/18 20:58	10
Chromium	14		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Cobalt	3.6		0.27	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Copper	11		0.55	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Iron	11000	B	11	5.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Lead	25		0.27	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Magnesium	24000		5.5	2.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Manganese	200	B	0.55	0.079	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Nickel	16		0.55	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Potassium	670		27	9.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Silver	0.15	J	0.27	0.070	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Sodium	210		55	8.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Vanadium	23		0.27	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1
Zinc	31	B	1.1	0.48	mg/Kg	☼	05/11/18 17:09	05/16/18 02:03	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.40	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:04	1
Boron	0.060	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:04	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 87.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0027	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Manganese	0.15		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:04	1
Zinc	0.034	J	0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:04	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.40		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 03:07	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 13:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 13:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 06:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0059	mg/Kg	☼	05/22/18 15:55	05/24/18 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.20	0.20	SU	-		05/17/18 15:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018		0.017	0.0074	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 131	05/11/18 07:40	05/17/18 20:32	1
Dibromofluoromethane	85		75 - 126	05/11/18 07:40	05/17/18 20:32	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 134	05/11/18 07:40	05/17/18 20:32	1
Toluene-d8 (Surr)	93		75 - 124	05/11/18 07:40	05/17/18 20:32	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4-Dimethylphenol	<0.35		0.35	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4-Dichlorophenol	<0.35		0.35	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Phenanthrene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Anthracene	<0.035		0.035	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Fluoranthene	<0.035		0.035	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Pyrene	0.0074	J	0.035	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Benzo[a]anthracene	0.0061	J	0.035	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Benzo[b]fluoranthene	0.012	J	0.035	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Benzo[k]fluoranthene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Benzo[a]pyrene	0.014	J	0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	133		46 - 133				05/21/18 07:31	05/22/18 17:34	1
Phenol-d5	64		46 - 125				05/21/18 07:31	05/22/18 17:34	1
Nitrobenzene-d5	97		41 - 120				05/21/18 07:31	05/22/18 17:34	1
2-Fluorobiphenyl	95		44 - 121				05/21/18 07:31	05/22/18 17:34	1
2,4,6-Tribromophenol	90		25 - 139				05/21/18 07:31	05/22/18 17:34	1
Terphenyl-d14	107		35 - 160				05/21/18 07:31	05/22/18 17:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Arsenic	1.8		0.51	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Barium	23		0.51	0.058	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Beryllium	0.23		0.20	0.047	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Boron	3.3	B	2.5	0.24	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Cadmium	0.13	B	0.10	0.018	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Calcium	89000	B	100	17	mg/Kg	☼	05/11/18 17:09	05/16/18 21:02	10
Chromium	7.0		0.51	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Cobalt	3.4		0.25	0.067	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Copper	5.9		0.51	0.14	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Iron	7000	B	10	5.3	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Lead	18		0.25	0.12	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Magnesium	39000		5.1	2.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Manganese	210	B	0.51	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Nickel	6.8		0.51	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Potassium	540		25	9.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Selenium	<0.51		0.51	0.30	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Silver	0.11	J	0.25	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Sodium	230		51	7.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Thallium	<0.51		0.51	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Vanadium	15		0.25	0.060	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1
Zinc	20	B	1.0	0.45	mg/Kg	☼	05/11/18 17:09	05/16/18 02:07	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.35	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:08	1
Boron	0.051	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:08	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Manganese	0.40		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:08	1
Zinc	0.048	J	0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:08	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.23		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 03:11	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 13:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 13:49	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 06:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.016	0.0054	mg/Kg	☼	05/22/18 15:55	05/24/18 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU	-		05/17/18 15:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 88.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
2-Butanone (MEK)	<0.0042	*	0.0042	0.0019	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,1-Dichloroethene	<0.0017	*	0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Vinyl acetate	<0.0042	*	0.0042	0.0015	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 07:40	05/18/18 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		75 - 131	05/11/18 07:40	05/18/18 12:16	1
Dibromofluoromethane	125		75 - 126	05/11/18 07:40	05/18/18 12:16	1
1,2-Dichloroethane-d4 (Surr)	130		70 - 134	05/11/18 07:40	05/18/18 12:16	1
Toluene-d8 (Surr)	109		75 - 124	05/11/18 07:40	05/18/18 12:16	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 88.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Methylnaphthalene	<0.074		0.074	0.0067	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Pyrene	<0.036		0.036	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Benzof[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 88.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Benzo[b]fluoranthene	0.011	J	0.036	0.0079	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/21/18 07:31	05/22/18 18:01	1
Phenol-d5	78		46 - 125	05/21/18 07:31	05/22/18 18:01	1
Nitrobenzene-d5	99		41 - 120	05/21/18 07:31	05/22/18 18:01	1
2-Fluorobiphenyl	92		44 - 121	05/21/18 07:31	05/22/18 18:01	1
2,4,6-Tribromophenol	85		25 - 139	05/21/18 07:31	05/22/18 18:01	1
Terphenyl-d14	104		35 - 160	05/21/18 07:31	05/22/18 18:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Arsenic	2.4		0.55	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Barium	19		0.55	0.062	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Beryllium	0.25		0.22	0.051	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Boron	4.0	B	2.7	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Calcium	80000	B	110	18	mg/Kg	☼	05/11/18 17:09	05/16/18 21:05	10
Chromium	7.8		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Cobalt	2.8		0.27	0.071	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Copper	6.7		0.55	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Iron	6800	B	11	5.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Lead	8.0		0.27	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Magnesium	35000		5.5	2.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Manganese	150	B	0.55	0.079	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Nickel	7.4		0.55	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Potassium	670		27	9.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Silver	0.091	J	0.27	0.070	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Sodium	210		55	8.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Vanadium	15		0.27	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1
Zinc	17	B	1.1	0.48	mg/Kg	☼	05/11/18 17:09	05/16/18 02:11	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:12	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:12	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 88.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:12	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:12	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:12	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:12	1
Manganese	0.21		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:12	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:12	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:12	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:12	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:12	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.25		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 03:15	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:52	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0088	J	0.018	0.0058	mg/Kg	☼	05/22/18 15:55	05/24/18 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/17/18 15:38	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
2-Butanone (MEK)	<0.0050	*	0.0050	0.0022	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,2-Dichloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,1-Dichloroethene	<0.0020	*	0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Vinyl acetate	<0.0050	*	0.0050	0.0017	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	05/11/18 07:40	05/18/18 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		75 - 131	05/11/18 07:40	05/18/18 13:10	1
Dibromofluoromethane	99		75 - 126	05/11/18 07:40	05/18/18 13:10	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/11/18 07:40	05/18/18 13:10	1
Toluene-d8 (Surr)	85		75 - 124	05/11/18 07:40	05/18/18 13:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Fluoranthene	0.016	J	0.038	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Pyrene	0.015	J	0.038	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Benzo[a]anthracene	0.010	J	0.038	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.012	J	0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Benzo[a]pyrene	0.020	J	0.038	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	125		46 - 133				05/21/18 07:31	05/22/18 18:28	1
Phenol-d5	90		46 - 125				05/21/18 07:31	05/22/18 18:28	1
Nitrobenzene-d5	90		41 - 120				05/21/18 07:31	05/22/18 18:28	1
2-Fluorobiphenyl	96		44 - 121				05/21/18 07:31	05/22/18 18:28	1
2,4,6-Tribromophenol	120		25 - 139				05/21/18 07:31	05/22/18 18:28	1
Terphenyl-d14	97		35 - 160				05/21/18 07:31	05/22/18 18:28	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Arsenic	3.4		0.59	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Barium	67		0.59	0.068	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Beryllium	0.48		0.24	0.055	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Boron	4.3	B	3.0	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Cadmium	0.44	B	0.12	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Calcium	20000	B	12	2.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Chromium	13		0.59	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Cobalt	5.2		0.30	0.078	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Copper	16		0.59	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Iron	13000	B	12	6.2	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Lead	33		0.30	0.14	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Magnesium	12000		5.9	2.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Manganese	290	B	0.59	0.086	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Nickel	13		0.59	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Potassium	690		30	10	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Silver	0.17	J	0.30	0.076	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Sodium	260		59	8.8	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Thallium	<0.59		0.59	0.30	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Vanadium	25		0.30	0.070	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1
Zinc	220	B	1.2	0.52	mg/Kg	☼	05/11/18 17:09	05/16/18 02:15	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:24	1
Boron	0.068	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:24	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0029	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Manganese	0.28		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:24	1
Zinc	0.52		0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:24	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.22		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 03:19	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 13:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 13:56	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 06:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.019	0.0062	mg/Kg	☼	05/22/18 15:55	05/24/18 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU	-		05/17/18 15:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0092	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
2-Butanone (MEK)	<0.0053		0.0053	0.0023	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Chlorobenzene	<0.0021		0.0021	0.00078	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Chloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Chloroform	<0.0021		0.0021	0.00073	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,2-Dichloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,2-Dichloropropane	<0.0021		0.0021	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
2-Hexanone	<0.0053		0.0053	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Tetrachloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Vinyl acetate	<0.0053		0.0053	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Vinyl chloride	<0.0021		0.0021	0.00093	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	05/11/18 07:40	05/17/18 15:19	1
Dibromofluoromethane	139	X	75 - 126	05/11/18 07:40	05/17/18 15:19	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	05/11/18 07:40	05/17/18 15:19	1
Toluene-d8 (Surr)	107		75 - 124	05/11/18 07:40	05/17/18 15:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Benzof[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 16:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		46 - 133				05/21/18 07:31	05/22/18 16:40	1
Phenol-d5	109		46 - 125				05/21/18 07:31	05/22/18 16:40	1
Nitrobenzene-d5	139	X	41 - 120				05/21/18 07:31	05/22/18 16:40	1
2-Fluorobiphenyl	72		44 - 121				05/21/18 07:31	05/22/18 16:40	1
2,4,6-Tribromophenol	86		25 - 139				05/21/18 07:31	05/22/18 16:40	1
Terphenyl-d14	102		35 - 160				05/21/18 07:31	05/22/18 16:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Arsenic	2.7		0.57	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Barium	65		0.57	0.065	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Beryllium	0.39		0.23	0.053	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Boron	2.6	J B	2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Cadmium	0.22	B	0.11	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Calcium	3100	B	11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Chromium	12		0.57	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Cobalt	5.7		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Copper	7.5		0.57	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Iron	11000	B	11	5.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Lead	9.2		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Magnesium	1900		5.7	2.8	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Manganese	360	B	0.57	0.083	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Nickel	9.5		0.57	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Potassium	520		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Selenium	0.38	J	0.57	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Silver	0.17	J	0.29	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Sodium	64		57	8.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Vanadium	25		0.29	0.067	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1
Zinc	27	B	1.1	0.50	mg/Kg	☼	05/11/18 17:09	05/16/18 02:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.20	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:28	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:28	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:28	1
Iron	1.1		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:28	1
Manganese	0.047		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:28	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:28	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:28	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:06	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.019	0.0062	mg/Kg	✱	05/22/18 15:55	05/24/18 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/17/18 15:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.010	J	0.018	0.0078	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		75 - 131	05/11/18 07:40	05/17/18 15:47	1
Dibromofluoromethane	108		75 - 126	05/11/18 07:40	05/17/18 15:47	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/11/18 07:40	05/17/18 15:47	1
Toluene-d8 (Surr)	93		75 - 124	05/11/18 07:40	05/17/18 15:47	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Benzof[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1

Euofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 17:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	131		46 - 133				05/21/18 07:31	05/22/18 17:07	1
Phenol-d5	109		46 - 125				05/21/18 07:31	05/22/18 17:07	1
Nitrobenzene-d5	127	X	41 - 120				05/21/18 07:31	05/22/18 17:07	1
2-Fluorobiphenyl	80		44 - 121				05/21/18 07:31	05/22/18 17:07	1
2,4,6-Tribromophenol	168	X	25 - 139				05/21/18 07:31	05/22/18 17:07	1
Terphenyl-d14	96		35 - 160				05/21/18 07:31	05/22/18 17:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Arsenic	2.1		0.57	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Barium	47		0.57	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Beryllium	0.45		0.23	0.054	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Boron	4.1	B	2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Cadmium	0.15	B	0.11	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Calcium	6400	B	11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Chromium	13		0.57	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Cobalt	5.8		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Copper	8.1		0.57	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Iron	11000	B	11	6.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Lead	6.0		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Magnesium	4600		5.7	2.9	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Manganese	260	B	0.57	0.083	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Nickel	13		0.57	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Potassium	850		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Silver	0.19	J	0.29	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Sodium	72		57	8.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Vanadium	23		0.29	0.068	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1
Zinc	22	B	1.1	0.50	mg/Kg	☼	05/11/18 17:09	05/16/18 02:23	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.32	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:32	1
Boron	0.058	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:32	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Manganese	0.35		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 01:32	1
Zinc	0.055	J	0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 01:32	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.29		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 03:35	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 14:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 14:10	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 06:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0060	mg/Kg	☼	05/22/18 15:55	05/24/18 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.20	0.20	SU	-		05/17/18 15:46	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Date Collected: 05/10/18 11:25

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 84.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	05/11/18 07:40	05/17/18 16:14	1
Dibromofluoromethane	107		75 - 126	05/11/18 07:40	05/17/18 16:14	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	05/11/18 07:40	05/17/18 16:14	1
Toluene-d8 (Surr)	102		75 - 124	05/11/18 07:40	05/17/18 16:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Date Collected: 05/10/18 11:25

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 84.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4-Dinitrophenol	<0.77	F1	0.77	0.67	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Benzof[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Date Collected: 05/10/18 11:25

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 84.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	113		46 - 133				05/18/18 07:39	05/18/18 23:31	1
Phenol-d5	94		46 - 125				05/18/18 07:39	05/18/18 23:31	1
Nitrobenzene-d5	81		41 - 120				05/18/18 07:39	05/18/18 23:31	1
2-Fluorobiphenyl	93		44 - 121				05/18/18 07:39	05/18/18 23:31	1
2,4,6-Tribromophenol	72		25 - 139				05/18/18 07:39	05/18/18 23:31	1
Terphenyl-d14	132		35 - 160				05/18/18 07:39	05/18/18 23:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Arsenic	3.3		0.54	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Barium	60		0.54	0.062	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Beryllium	0.56		0.22	0.051	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Boron	4.6 B		2.7	0.25	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Cadmium	0.16 B		0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Calcium	30000 B		11	1.8	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Chromium	17		0.54	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Cobalt	6.0		0.27	0.071	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Copper	12		0.54	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Iron	15000 B		11	5.6	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Lead	7.8		0.27	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Magnesium	15000		5.4	2.7	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Manganese	190 B		0.54	0.079	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Nickel	16		0.54	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Potassium	990		27	9.6	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Silver	0.31		0.27	0.070	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Sodium	160		54	8.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Thallium	0.27 J		0.54	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Vanadium	31		0.27	0.064	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1
Zinc	33 B		1.1	0.48	mg/Kg	☼	05/11/18 17:09	05/16/18 02:27	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:36	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:36	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Date Collected: 05/10/18 11:25

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 84.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:36	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:36	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:36	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:36	1
Manganese	0.29		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:36	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:36	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:36	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:36	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:36	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.098		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 03:39	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:14	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.019	0.0062	mg/Kg	☼	05/22/18 15:55	05/24/18 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/17/18 15:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Date Collected: 05/10/18 11:30

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 77.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.020	0.0087	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/11/18 07:40	05/17/18 16:41	1
Dibromofluoromethane	99		75 - 126	05/11/18 07:40	05/17/18 16:41	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	05/11/18 07:40	05/17/18 16:41	1
Toluene-d8 (Surr)	118		75 - 124	05/11/18 07:40	05/17/18 16:41	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.093	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Date Collected: 05/10/18 11:30

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 77.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.051	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Nitrobenzene	<0.042		0.042	0.010	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Naphthalene	<0.042		0.042	0.0064	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4,6-Trichlorophenol	<0.42		0.42	0.14	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Methylnaphthalene	<0.085		0.085	0.0077	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2-Nitrophenol	<0.42		0.42	0.099	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4-Dinitrophenol	<0.85		0.85	0.74	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Acenaphthylene	<0.042		0.042	0.0055	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Acenaphthene	<0.042		0.042	0.0075	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Fluorene	<0.042		0.042	0.0059	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Hexachlorobenzene	<0.085		0.085	0.0097	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Pentachlorophenol	<0.85		0.85	0.67	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Phenanthrene	<0.042		0.042	0.0058	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Anthracene	<0.042		0.042	0.0070	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Fluoranthene	<0.042		0.042	0.0078	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Pyrene	<0.042		0.042	0.0083	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Benzof[a]anthracene	<0.042		0.042	0.0056	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Date Collected: 05/10/18 11:30

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 77.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.042		0.042	0.011	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Benzo[b]fluoranthene	<0.042		0.042	0.0090	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Benzo[k]fluoranthene	<0.042		0.042	0.012	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Benzo[a]pyrene	<0.042		0.042	0.0081	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.011	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0081	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Benzo[g,h,i]perylene	<0.042		0.042	0.013	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	05/18/18 07:39	05/19/18 00:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	118		46 - 133				05/18/18 07:39	05/19/18 00:00	1
Phenol-d5	94		46 - 125				05/18/18 07:39	05/19/18 00:00	1
Nitrobenzene-d5	84		41 - 120				05/18/18 07:39	05/19/18 00:00	1
2-Fluorobiphenyl	96		44 - 121				05/18/18 07:39	05/19/18 00:00	1
2,4,6-Tribromophenol	81		25 - 139				05/18/18 07:39	05/19/18 00:00	1
Terphenyl-d14	129		35 - 160				05/18/18 07:39	05/19/18 00:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Arsenic	2.7		0.61	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Barium	73		0.61	0.069	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Beryllium	0.50		0.24	0.057	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Boron	3.9 B		3.0	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Cadmium	0.19 B		0.12	0.022	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Calcium	9900 B		12	2.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Chromium	18		0.61	0.30	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Cobalt	4.3		0.30	0.080	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Copper	9.2		0.61	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Iron	14000 B		12	6.3	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Lead	10		0.30	0.14	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Magnesium	6400		6.1	3.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Manganese	200 B		0.61	0.088	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Nickel	12		0.61	0.18	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Potassium	800		30	11	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Selenium	<0.61		0.61	0.36	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Silver	0.21 J		0.30	0.078	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Sodium	160		61	9.0	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Vanadium	30		0.30	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1
Zinc	33 B		1.2	0.53	mg/Kg	☼	05/11/18 17:09	05/16/18 02:31	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 01:41	1
Boron	0.058 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 01:41	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Date Collected: 05/10/18 11:30

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 77.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 01:41	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:41	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:41	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 01:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 01:41	1
Manganese	0.20		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:41	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:41	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 01:41	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 01:41	1
Zinc	0.093	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 01:41	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.16		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 03:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.020	0.0065	mg/Kg	☼	05/22/18 15:55	05/24/18 11:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/17/18 15:51	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

GC/MS VOA

Prep Batch: 432680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	5035	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	5035	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	5035	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	5035	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	5035	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	5035	
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	5035	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	5035	

Analysis Batch: 432712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	8260B	432680
MB 500-432712/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-432712/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432712/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 432713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	8260B	432680
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	8260B	432680
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	8260B	432680
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	8260B	432680
MB 500-432713/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432713/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432713/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 432916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	8260B	432680
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	8260B	432680
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	8260B	432680
MB 500-432916/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-432916/12	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-432916/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 432892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	3541	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	3541	
MB 500-432892/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-432892/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-145298-11 MS	2273V-02-B24 (0-6)	Total/NA	Solid	3541	
500-145298-11 MSD	2273V-02-B24 (0-6)	Total/NA	Solid	3541	

Analysis Batch: 432977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	8270D	432892
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	8270D	432892
MB 500-432892/1-A	Method Blank	Total/NA	Solid	8270D	432892

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

GC/MS Semi VOA (Continued)

Analysis Batch: 432977 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-432892/2-A	Lab Control Sample	Total/NA	Solid	8270D	432892
500-145298-11 MS	2273V-02-B24 (0-6)	Total/NA	Solid	8270D	432892

Prep Batch: 433188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	3541	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	3541	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	3541	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	3541	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	3541	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	3541	
MB 500-433188/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-433188/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 433328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-11 MSD	2273V-02-B24 (0-6)	Total/NA	Solid	8270D	432892

Analysis Batch: 433360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-433188/1-A	Method Blank	Total/NA	Solid	8270D	433188
LCS 500-433188/2-A	Lab Control Sample	Total/NA	Solid	8270D	433188

Analysis Batch: 433370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	8270D	433188
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	8270D	433188
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	8270D	433188
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	8270D	433188
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	8270D	433188
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	8270D	433188

Metals

Prep Batch: 431918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	3050B	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	3050B	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	3050B	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	3050B	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	3050B	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	3050B	
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	3050B	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	3050B	
MB 500-431918/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Leach Batch: 432144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	SPLP East	Solid	1312	
500-145298-6	2273V-02-B19 (0-6)	SPLP East	Solid	1312	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Metals (Continued)

Leach Batch: 432144 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-7	2273V-02-B20 (0-4)	SPLP East	Solid	1312	
500-145298-8	2273V-02-B21 (0-4)	SPLP East	Solid	1312	
500-145298-10	2273V-02-B23 (0-6)	SPLP East	Solid	1312	
500-145298-11	2273V-02-B24 (0-6)	SPLP East	Solid	1312	
500-145298-12	2273V-02-B25 (0-5)	SPLP East	Solid	1312	
LB 500-432144/1-D	Method Blank	SPLP East	Solid	1312	

Leach Batch: 432149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	1311	
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	1311	
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	1311	
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	1311	
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	1311	
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	1311	
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	1311	
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	1311	
LB 500-432149/1-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 432389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	SPLP East	Solid	3010A	432144
500-145298-6	2273V-02-B19 (0-6)	SPLP East	Solid	3010A	432144
500-145298-7	2273V-02-B20 (0-4)	SPLP East	Solid	3010A	432144
500-145298-8	2273V-02-B21 (0-4)	SPLP East	Solid	3010A	432144
500-145298-10	2273V-02-B23 (0-6)	SPLP East	Solid	3010A	432144
500-145298-11	2273V-02-B24 (0-6)	SPLP East	Solid	3010A	432144
500-145298-12	2273V-02-B25 (0-5)	SPLP East	Solid	3010A	432144
LB 500-432144/1-D	Method Blank	SPLP East	Solid	3010A	432144
LCS 500-432389/2-B	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 432394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	3010A	432149
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	3010A	432149
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	3010A	432149
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	3010A	432149
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	3010A	432149
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	3010A	432149
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	3010A	432149
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	3010A	432149
LB 500-432149/1-B	Method Blank	TCLP	Solid	3010A	432149
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 432522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	6010B	431918
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	6010B	431918
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	6010B	431918
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	6010B	431918
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	6010B	431918

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Metals (Continued)

Analysis Batch: 432522 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	6010B	431918
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	6010B	431918
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	6010B	431918
MB 500-431918/1-A	Method Blank	Total/NA	Solid	6010B	431918
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	6010B	431918

Analysis Batch: 432693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	6010B	431918
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	6010B	431918
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	6010B	431918
MB 500-431918/1-A	Method Blank	Total/NA	Solid	6010B	431918
LCS 500-431918/2-A	Lab Control Sample	Total/NA	Solid	6010B	431918

Analysis Batch: 432694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	6010B	432394
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	6010B	432394
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	6010B	432394
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	6010B	432394
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	6010B	432394
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	6010B	432394
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	6010B	432394
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	6010B	432394
LB 500-432149/1-B	Method Blank	TCLP	Solid	6010B	432394
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	6010B	432394

Analysis Batch: 433204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	SPLP East	Solid	6010B	432389
500-145298-6	2273V-02-B19 (0-6)	SPLP East	Solid	6010B	432389
500-145298-7	2273V-02-B20 (0-4)	SPLP East	Solid	6010B	432389
500-145298-8	2273V-02-B21 (0-4)	SPLP East	Solid	6010B	432389
500-145298-10	2273V-02-B23 (0-6)	SPLP East	Solid	6010B	432389
500-145298-11	2273V-02-B24 (0-6)	SPLP East	Solid	6010B	432389
500-145298-12	2273V-02-B25 (0-5)	SPLP East	Solid	6010B	432389
LB 500-432144/1-D	Method Blank	SPLP East	Solid	6010B	432389
LCS 500-432389/2-B	Lab Control Sample	Total/NA	Solid	6010B	432389

Analysis Batch: 433392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	6020A	432394
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	6020A	432394
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	6020A	432394
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	6020A	432394
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	6020A	432394
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	6020A	432394
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	6020A	432394
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	6020A	432394
LB 500-432149/1-B	Method Blank	TCLP	Solid	6020A	432394
LCS 500-432394/2-A	Lab Control Sample	Total/NA	Solid	6020A	432394

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Metals

Prep Batch: 433400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	7471B	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	7471B	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	7471B	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	7471B	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	7471B	
MB 500-433400/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-433400/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-145298-6 MS	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	
500-145298-6 MSD	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	
500-145298-6 DU	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	

Prep Batch: 433403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	7471B	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	7471B	
MB 500-433403/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-433403/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 433740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	7470A	433740
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	7470A	433740
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	7470A	433740
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	7470A	433740
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	7470A	433740
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	7470A	433740
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	7470A	433740
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	7470A	433740
MB 500-433740/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-433740/13-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 433784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	TCLP	Solid	7470A	433740
500-145298-6	2273V-02-B19 (0-6)	TCLP	Solid	7470A	433740
500-145298-7	2273V-02-B20 (0-4)	TCLP	Solid	7470A	433740
500-145298-8	2273V-02-B21 (0-4)	TCLP	Solid	7470A	433740
500-145298-9	2273V-02-B22 (0-5)	TCLP	Solid	7470A	433740
500-145298-10	2273V-02-B23 (0-6)	TCLP	Solid	7470A	433740
500-145298-11	2273V-02-B24 (0-6)	TCLP	Solid	7470A	433740
500-145298-12	2273V-02-B25 (0-5)	TCLP	Solid	7470A	433740
MB 500-433740/12-A	Method Blank	Total/NA	Solid	7470A	433740
LCS 500-433740/13-A	Lab Control Sample	Total/NA	Solid	7470A	433740

Analysis Batch: 433853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	7471B	433400
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	433400
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	7471B	433400
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	7471B	433400

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Metals (Continued)

Analysis Batch: 433853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	7471B	433400
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	7471B	433400
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	7471B	433403
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	7471B	433403
MB 500-433400/12-A	Method Blank	Total/NA	Solid	7471B	433400
MB 500-433403/12-A	Method Blank	Total/NA	Solid	7471B	433403
LCS 500-433400/13-A	Lab Control Sample	Total/NA	Solid	7471B	433400
LCS 500-433403/13-A	Lab Control Sample	Total/NA	Solid	7471B	433403
500-145298-6 MS	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	433400
500-145298-6 MSD	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	433400
500-145298-6 DU	2273V-02-B19 (0-6)	Total/NA	Solid	7471B	433400

General Chemistry

Analysis Batch: 431889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	Moisture	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	Moisture	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	Moisture	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	Moisture	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	Moisture	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	Moisture	
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	Moisture	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	Moisture	
500-145298-7 DU	2273V-02-B20 (0-4)	Total/NA	Solid	Moisture	

Analysis Batch: 432929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145298-5	2273V-02-B18 (0-6)	Total/NA	Solid	9045D	
500-145298-6	2273V-02-B19 (0-6)	Total/NA	Solid	9045D	
500-145298-7	2273V-02-B20 (0-4)	Total/NA	Solid	9045D	
500-145298-8	2273V-02-B21 (0-4)	Total/NA	Solid	9045D	
500-145298-9	2273V-02-B22 (0-5)	Total/NA	Solid	9045D	
500-145298-10	2273V-02-B23 (0-6)	Total/NA	Solid	9045D	
500-145298-11	2273V-02-B24 (0-6)	Total/NA	Solid	9045D	
500-145298-12	2273V-02-B25 (0-5)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-145298-5	2273V-02-B18 (0-6)	83	112	120	142 X
500-145298-6	2273V-02-B19 (0-6)	95	85	85	93
500-145298-7	2273V-02-B20 (0-4)	127	125	130	109
500-145298-8	2273V-02-B21 (0-4)	107	99	105	85
500-145298-9	2273V-02-B22 (0-5)	85	139 X	111	107
500-145298-10	2273V-02-B23 (0-6)	107	108	105	93
500-145298-11	2273V-02-B24 (0-6)	91	107	108	102
500-145298-12	2273V-02-B25 (0-5)	102	99	106	118
LCS 500-432712/3	Lab Control Sample	92	82	77	95
LCS 500-432713/3	Lab Control Sample	98	103	100	109
LCS 500-432916/12	Lab Control Sample	104	109	101	110
LCSD 500-432712/4	Lab Control Sample Dup	94	81	78	94
LCSD 500-432713/4	Lab Control Sample Dup	98	99	101	111
LCSD 500-432916/4	Lab Control Sample Dup	97	103	96	109
MB 500-432712/5	Method Blank	100	82	79	92
MB 500-432713/6	Method Blank	99	107	110	98
MB 500-432916/6	Method Blank	104	101	102	111

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (46-133)	PHL (46-125)	NBZ (41-120)	FBP (44-121)	TBP (25-139)	TPHL (35-160)
500-145298-5	2273V-02-B18 (0-6)	132	93	92	91	123	103
500-145298-6	2273V-02-B19 (0-6)	133	64	97	95	90	107
500-145298-7	2273V-02-B20 (0-4)	135 X	78	99	92	85	104
500-145298-8	2273V-02-B21 (0-4)	125	90	90	96	120	97
500-145298-9	2273V-02-B22 (0-5)	106	109	139 X	72	86	102
500-145298-10	2273V-02-B23 (0-6)	131	109	127 X	80	168 X	96
500-145298-11	2273V-02-B24 (0-6)	113	94	81	93	72	132
500-145298-11 MS	2273V-02-B24 (0-6)	108	99	85	92	73	104
500-145298-11 MSD	2273V-02-B24 (0-6)	91	79	90	97	83	114
500-145298-12	2273V-02-B25 (0-5)	118	94	84	96	81	129
LCS 500-432892/2-A	Lab Control Sample	117	109	92	105	93	113
LCS 500-433188/2-A	Lab Control Sample	111	100	95	102	102	122
MB 500-432892/1-A	Method Blank	124	111	86	102	79	132
MB 500-433188/1-A	Method Blank	112	99	88	142 X	108	114

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol

Eurofins TestAmerica, Chicago

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041
TPHL = Terphenyl-d14

Job ID: 500-145298-2

- 1
- 2
- 3
- 4
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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432712/5
Matrix: Solid
Analysis Batch: 432712

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			05/17/18 10:46	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 10:46	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/17/18 10:46	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 10:46	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/17/18 10:46	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/17/18 10:46	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/17/18 10:46	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 10:46	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/17/18 10:46	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 10:46	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 10:46	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/17/18 10:46	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 10:46	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/17/18 10:46	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 10:46	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 10:46	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/17/18 10:46	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 10:46	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/17/18 10:46	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 10:46	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 10:46	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 10:46	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/17/18 10:46	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 10:46	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/17/18 10:46	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 10:46	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 10:46	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 10:46	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 10:46	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/17/18 10:46	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/17/18 10:46	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 10:46	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/17/18 10:46	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 10:46	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/17/18 10:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131		05/17/18 10:46	1
Dibromofluoromethane	82		75 - 126		05/17/18 10:46	1
1,2-Dichloroethane-d4 (Surr)	79		70 - 134		05/17/18 10:46	1
Toluene-d8 (Surr)	92		75 - 124		05/17/18 10:46	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432712/3

Matrix: Solid

Analysis Batch: 432712

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0489		mg/Kg		98	40 - 150
Benzene	0.0500	0.0454		mg/Kg		91	70 - 125
Bromodichloromethane	0.0500	0.0454		mg/Kg		91	67 - 129
Bromoform	0.0500	0.0517		mg/Kg		103	68 - 136
Bromomethane	0.0500	0.0419		mg/Kg		84	70 - 130
2-Butanone (MEK)	0.0500	0.0374		mg/Kg		75	47 - 138
Carbon disulfide	0.0500	0.0462		mg/Kg		92	70 - 129
Carbon tetrachloride	0.0500	0.0495		mg/Kg		99	75 - 125
Chlorobenzene	0.0500	0.0500		mg/Kg		100	50 - 150
Chloroethane	0.0500	0.0530		mg/Kg		106	75 - 125
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0513		mg/Kg		103	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0456		mg/Kg		91	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0509		mg/Kg		102	70 - 125
Dibromochloromethane	0.0500	0.0519		mg/Kg		104	69 - 125
1,1-Dichloroethane	0.0500	0.0466		mg/Kg		93	70 - 125
1,2-Dichloroethane	0.0500	0.0454		mg/Kg		91	70 - 130
1,1-Dichloroethene	0.0500	0.0451		mg/Kg		90	70 - 120
1,2-Dichloropropane	0.0500	0.0455		mg/Kg		91	70 - 125
Ethylbenzene	0.0500	0.0506		mg/Kg		101	61 - 136
2-Hexanone	0.0500	0.0474		mg/Kg		95	48 - 146
Methylene Chloride	0.0500	0.0438		mg/Kg		88	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0466		mg/Kg		93	50 - 148
Methyl tert-butyl ether	0.0500	0.0473		mg/Kg		95	50 - 140
Styrene	0.0500	0.0518		mg/Kg		104	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0497		mg/Kg		99	70 - 122
Tetrachloroethene	0.0500	0.0518		mg/Kg		104	70 - 124
Toluene	0.0500	0.0510		mg/Kg		102	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0505		mg/Kg		101	70 - 125
1,1,1-Trichloroethane	0.0500	0.0481		mg/Kg		96	70 - 128
1,1,2-Trichloroethane	0.0500	0.0493		mg/Kg		99	70 - 125
Trichloroethene	0.0500	0.0456		mg/Kg		91	70 - 125
Vinyl acetate	0.0500	0.0313		mg/Kg		63	40 - 153
Vinyl chloride	0.0500	0.0505		mg/Kg		101	70 - 125
Xylenes, Total	0.100	0.102		mg/Kg		102	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	82		75 - 126
1,2-Dichloroethane-d4 (Surr)	77		70 - 134
Toluene-d8 (Surr)	95		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432712/4
Matrix: Solid
Analysis Batch: 432712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0495		mg/Kg		99	40 - 150	1	30
Benzene	0.0500	0.0432		mg/Kg		86	70 - 125	5	30
Bromodichloromethane	0.0500	0.0430		mg/Kg		86	67 - 129	5	30
Bromoform	0.0500	0.0484		mg/Kg		97	68 - 136	7	30
Bromomethane	0.0500	0.0431		mg/Kg		86	70 - 130	3	30
2-Butanone (MEK)	0.0500	0.0387		mg/Kg		77	47 - 138	3	30
Carbon disulfide	0.0500	0.0434		mg/Kg		87	70 - 129	6	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	6	30
Chlorobenzene	0.0500	0.0461		mg/Kg		92	50 - 150	8	30
Chloroethane	0.0500	0.0554		mg/Kg		111	75 - 125	4	30
Chloroform	0.0500	0.0430		mg/Kg		86	57 - 135	5	30
Chloromethane	0.0500	0.0528		mg/Kg		106	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0437		mg/Kg		87	70 - 125	4	30
cis-1,3-Dichloropropene	0.0500	0.0469		mg/Kg		94	70 - 125	8	30
Dibromochloromethane	0.0500	0.0483		mg/Kg		97	69 - 125	7	30
1,1-Dichloroethane	0.0500	0.0445		mg/Kg		89	70 - 125	5	30
1,2-Dichloroethane	0.0500	0.0428		mg/Kg		86	70 - 130	6	30
1,1-Dichloroethene	0.0500	0.0420		mg/Kg		84	70 - 120	7	30
1,2-Dichloropropane	0.0500	0.0441		mg/Kg		88	70 - 125	3	30
Ethylbenzene	0.0500	0.0478		mg/Kg		96	61 - 136	6	30
2-Hexanone	0.0500	0.0486		mg/Kg		97	48 - 146	2	30
Methylene Chloride	0.0500	0.0415		mg/Kg		83	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0466		mg/Kg		93	50 - 148	0	30
Methyl tert-butyl ether	0.0500	0.0457		mg/Kg		91	50 - 140	3	30
Styrene	0.0500	0.0487		mg/Kg		97	70 - 125	6	30
1,1,2,2-Tetrachloroethane	0.0500	0.0476		mg/Kg		95	70 - 122	4	30
Tetrachloroethene	0.0500	0.0475		mg/Kg		95	70 - 124	9	30
Toluene	0.0500	0.0472		mg/Kg		94	70 - 125	8	30
trans-1,2-Dichloroethene	0.0500	0.0435		mg/Kg		87	70 - 125	5	30
trans-1,3-Dichloropropene	0.0500	0.0475		mg/Kg		95	70 - 125	6	30
1,1,1-Trichloroethane	0.0500	0.0460		mg/Kg		92	70 - 128	4	30
1,1,2-Trichloroethane	0.0500	0.0473		mg/Kg		95	70 - 125	4	30
Trichloroethene	0.0500	0.0432		mg/Kg		86	70 - 125	5	30
Vinyl acetate	0.0500	0.0326		mg/Kg		65	40 - 153	4	30
Vinyl chloride	0.0500	0.0520		mg/Kg		104	70 - 125	3	30
Xylenes, Total	0.100	0.0958		mg/Kg		96	53 - 147	7	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		75 - 131
Dibromofluoromethane	81		75 - 126
1,2-Dichloroethane-d4 (Surr)	78		70 - 134
Toluene-d8 (Surr)	94		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432713/6
Matrix: Solid
Analysis Batch: 432713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			05/17/18 11:18	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 11:18	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/17/18 11:18	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 11:18	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/17/18 11:18	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/17/18 11:18	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/17/18 11:18	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/17/18 11:18	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/17/18 11:18	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 11:18	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 11:18	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 11:18	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/17/18 11:18	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 11:18	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/17/18 11:18	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 11:18	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 11:18	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/17/18 11:18	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/17/18 11:18	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 11:18	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/17/18 11:18	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/17/18 11:18	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/17/18 11:18	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/17/18 11:18	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/17/18 11:18	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/17/18 11:18	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/17/18 11:18	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 11:18	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/17/18 11:18	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 11:18	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/17/18 11:18	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/17/18 11:18	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/17/18 11:18	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/17/18 11:18	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/17/18 11:18	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/17/18 11:18	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/17/18 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131		05/17/18 11:18	1
Dibromofluoromethane	107		75 - 126		05/17/18 11:18	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134		05/17/18 11:18	1
Toluene-d8 (Surr)	98		75 - 124		05/17/18 11:18	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432713/3

Matrix: Solid

Analysis Batch: 432713

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0567		mg/Kg		113	40 - 150
Benzene	0.0500	0.0529		mg/Kg		106	70 - 125
Bromodichloromethane	0.0500	0.0570		mg/Kg		114	67 - 129
Bromoform	0.0500	0.0524		mg/Kg		105	68 - 136
Bromomethane	0.0500	0.0489		mg/Kg		98	70 - 130
2-Butanone (MEK)	0.0500	0.0518		mg/Kg		104	47 - 138
Carbon disulfide	0.0500	0.0552		mg/Kg		110	70 - 129
Carbon tetrachloride	0.0500	0.0526		mg/Kg		105	75 - 125
Chlorobenzene	0.0500	0.0525		mg/Kg		105	50 - 150
Chloroethane	0.0500	0.0466		mg/Kg		93	75 - 125
Chloroform	0.0500	0.0529		mg/Kg		106	57 - 135
Chloromethane	0.0500	0.0506		mg/Kg		101	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0517		mg/Kg		103	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0535		mg/Kg		107	70 - 125
Dibromochloromethane	0.0500	0.0545		mg/Kg		109	69 - 125
1,1-Dichloroethane	0.0500	0.0510		mg/Kg		102	70 - 125
1,2-Dichloroethane	0.0500	0.0527		mg/Kg		105	70 - 130
1,1-Dichloroethene	0.0500	0.0528		mg/Kg		106	70 - 120
1,2-Dichloropropane	0.0500	0.0543		mg/Kg		109	70 - 125
Ethylbenzene	0.0500	0.0531		mg/Kg		106	61 - 136
2-Hexanone	0.0500	0.0538		mg/Kg		108	48 - 146
Methylene Chloride	0.0500	0.0517		mg/Kg		103	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0455		mg/Kg		91	50 - 148
Methyl tert-butyl ether	0.0500	0.0516		mg/Kg		103	50 - 140
Styrene	0.0500	0.0533		mg/Kg		107	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0541		mg/Kg		108	70 - 122
Tetrachloroethene	0.0500	0.0524		mg/Kg		105	70 - 124
Toluene	0.0500	0.0523		mg/Kg		105	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0515		mg/Kg		103	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0564		mg/Kg		113	70 - 125
1,1,1-Trichloroethane	0.0500	0.0541		mg/Kg		108	70 - 128
1,1,2-Trichloroethane	0.0500	0.0549		mg/Kg		110	70 - 125
Trichloroethene	0.0500	0.0508		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0351		mg/Kg		70	40 - 153
Vinyl chloride	0.0500	0.0506		mg/Kg		101	70 - 125
Xylenes, Total	0.100	0.104		mg/Kg		104	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		75 - 131
Dibromofluoromethane	103		75 - 126
1,2-Dichloroethane-d4 (Surr)	100		70 - 134
Toluene-d8 (Surr)	109		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432713/4
Matrix: Solid
Analysis Batch: 432713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0600		mg/Kg		120	40 - 150	6	30
Benzene	0.0500	0.0535		mg/Kg		107	70 - 125	1	30
Bromodichloromethane	0.0500	0.0547		mg/Kg		109	67 - 129	4	30
Bromoform	0.0500	0.0542		mg/Kg		108	68 - 136	3	30
Bromomethane	0.0500	0.0493		mg/Kg		99	70 - 130	1	30
2-Butanone (MEK)	0.0500	0.0510		mg/Kg		102	47 - 138	2	30
Carbon disulfide	0.0500	0.0558		mg/Kg		112	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0509		mg/Kg		102	75 - 125	3	30
Chlorobenzene	0.0500	0.0513		mg/Kg		103	50 - 150	2	30
Chloroethane	0.0500	0.0478		mg/Kg		96	75 - 125	3	30
Chloroform	0.0500	0.0527		mg/Kg		105	57 - 135	0	30
Chloromethane	0.0500	0.0528		mg/Kg		106	70 - 125	4	30
cis-1,2-Dichloroethene	0.0500	0.0488		mg/Kg		98	70 - 125	6	30
cis-1,3-Dichloropropene	0.0500	0.0557		mg/Kg		111	70 - 125	4	30
Dibromochloromethane	0.0500	0.0554		mg/Kg		111	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0523		mg/Kg		105	70 - 125	2	30
1,2-Dichloroethane	0.0500	0.0544		mg/Kg		109	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0530		mg/Kg		106	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0558		mg/Kg		112	70 - 125	3	30
Ethylbenzene	0.0500	0.0522		mg/Kg		104	61 - 136	2	30
2-Hexanone	0.0500	0.0512		mg/Kg		102	48 - 146	5	30
Methylene Chloride	0.0500	0.0526		mg/Kg		105	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0525		mg/Kg		105	50 - 148	14	30
Methyl tert-butyl ether	0.0500	0.0530		mg/Kg		106	50 - 140	3	30
Styrene	0.0500	0.0539		mg/Kg		108	70 - 125	1	30
1,1,2,2-Tetrachloroethane	0.0500	0.0543		mg/Kg		109	70 - 122	0	30
Tetrachloroethene	0.0500	0.0522		mg/Kg		104	70 - 124	0	30
Toluene	0.0500	0.0533		mg/Kg		107	70 - 125	2	30
trans-1,2-Dichloroethene	0.0500	0.0527		mg/Kg		105	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0566		mg/Kg		113	70 - 125	0	30
1,1,1-Trichloroethane	0.0500	0.0516		mg/Kg		103	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0538		mg/Kg		108	70 - 125	2	30
Trichloroethene	0.0500	0.0518		mg/Kg		104	70 - 125	2	30
Vinyl acetate	0.0500	0.0365		mg/Kg		73	40 - 153	4	30
Vinyl chloride	0.0500	0.0520		mg/Kg		104	70 - 125	3	30
Xylenes, Total	0.100	0.103		mg/Kg		103	53 - 147	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		75 - 131
Dibromofluoromethane	99		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	111		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432916/6
Matrix: Solid
Analysis Batch: 432916

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			05/18/18 11:22	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			05/18/18 11:22	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			05/18/18 11:22	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			05/18/18 11:22	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			05/18/18 11:22	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			05/18/18 11:22	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			05/18/18 11:22	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			05/18/18 11:22	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			05/18/18 11:22	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			05/18/18 11:22	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			05/18/18 11:22	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			05/18/18 11:22	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			05/18/18 11:22	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			05/18/18 11:22	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			05/18/18 11:22	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			05/18/18 11:22	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			05/18/18 11:22	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			05/18/18 11:22	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			05/18/18 11:22	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			05/18/18 11:22	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			05/18/18 11:22	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			05/18/18 11:22	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			05/18/18 11:22	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			05/18/18 11:22	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			05/18/18 11:22	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			05/18/18 11:22	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			05/18/18 11:22	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/18/18 11:22	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			05/18/18 11:22	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			05/18/18 11:22	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			05/18/18 11:22	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			05/18/18 11:22	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			05/18/18 11:22	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			05/18/18 11:22	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			05/18/18 11:22	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			05/18/18 11:22	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			05/18/18 11:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131		05/18/18 11:22	1
Dibromofluoromethane	101		75 - 126		05/18/18 11:22	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134		05/18/18 11:22	1
Toluene-d8 (Surr)	111		75 - 124		05/18/18 11:22	1

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432916/12
Matrix: Solid
Analysis Batch: 432916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0559		mg/Kg		112	40 - 150
Benzene	0.0500	0.0539		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0640		mg/Kg		128	67 - 129
Bromoform	0.0500	0.0485		mg/Kg		97	68 - 136
Bromomethane	0.0500	0.0560		mg/Kg		112	70 - 130
2-Butanone (MEK)	0.0500	0.0520		mg/Kg		104	47 - 138
Carbon disulfide	0.0500	0.0636		mg/Kg		127	70 - 129
Carbon tetrachloride	0.0500	0.0553		mg/Kg		111	75 - 125
Chlorobenzene	0.0500	0.0479		mg/Kg		96	50 - 150
Chloroethane	0.0500	0.0544		mg/Kg		109	75 - 125
Chloroform	0.0500	0.0506		mg/Kg		101	57 - 135
Chloromethane	0.0500	0.0531		mg/Kg		106	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0542		mg/Kg		108	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0498		mg/Kg		100	70 - 125
Dibromochloromethane	0.0500	0.0498		mg/Kg		100	69 - 125
1,1-Dichloroethane	0.0500	0.0487		mg/Kg		97	70 - 125
1,2-Dichloroethane	0.0500	0.0519		mg/Kg		104	70 - 130
1,1-Dichloroethene	0.0500	0.0621	*	mg/Kg		124	70 - 120
1,2-Dichloropropane	0.0500	0.0595		mg/Kg		119	70 - 125
Ethylbenzene	0.0500	0.0497		mg/Kg		99	61 - 136
2-Hexanone	0.0500	0.0461		mg/Kg		92	48 - 146
Methylene Chloride	0.0500	0.0590		mg/Kg		118	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0487		mg/Kg		97	50 - 148
Methyl tert-butyl ether	0.0500	0.0600		mg/Kg		120	50 - 140
Styrene	0.0500	0.0496		mg/Kg		99	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0482		mg/Kg		96	70 - 122
Tetrachloroethene	0.0500	0.0507		mg/Kg		101	70 - 124
Toluene	0.0500	0.0506		mg/Kg		101	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0625		mg/Kg		125	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0519		mg/Kg		104	70 - 125
1,1,1-Trichloroethane	0.0500	0.0547		mg/Kg		109	70 - 128
1,1,2-Trichloroethane	0.0500	0.0491		mg/Kg		98	70 - 125
Trichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125
Vinyl acetate	0.0500	0.0473		mg/Kg		95	40 - 153
Vinyl chloride	0.0500	0.0572		mg/Kg		114	70 - 125
Xylenes, Total	0.100	0.0994		mg/Kg		99	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		75 - 131
Dibromofluoromethane	109		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	110		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-432916/4
Matrix: Solid
Analysis Batch: 432916

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0645		mg/Kg		129	40 - 150	14	30
Benzene	0.0500	0.0508		mg/Kg		102	70 - 125	6	30
Bromodichloromethane	0.0500	0.0472		mg/Kg		94	67 - 129	30	30
Bromoform	0.0500	0.0524		mg/Kg		105	68 - 136	8	30
Bromomethane	0.0500	0.0475		mg/Kg		95	70 - 130	16	30
2-Butanone (MEK)	0.0500	0.0717	*	mg/Kg		143	47 - 138	32	30
Carbon disulfide	0.0500	0.0614		mg/Kg		123	70 - 129	4	30
Carbon tetrachloride	0.0500	0.0480		mg/Kg		96	75 - 125	14	30
Chlorobenzene	0.0500	0.0498		mg/Kg		100	50 - 150	4	30
Chloroethane	0.0500	0.0581		mg/Kg		116	75 - 125	7	30
Chloroform	0.0500	0.0633		mg/Kg		127	57 - 135	22	30
Chloromethane	0.0500	0.0522		mg/Kg		104	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0591		mg/Kg		118	70 - 125	9	30
cis-1,3-Dichloropropene	0.0500	0.0527		mg/Kg		105	70 - 125	6	30
Dibromochloromethane	0.0500	0.0541		mg/Kg		108	69 - 125	8	30
1,1-Dichloroethane	0.0500	0.0612		mg/Kg		122	70 - 125	23	30
1,2-Dichloroethane	0.0500	0.0521		mg/Kg		104	70 - 130	0	30
1,1-Dichloroethene	0.0500	0.0588		mg/Kg		118	70 - 120	5	30
1,2-Dichloropropane	0.0500	0.0466		mg/Kg		93	70 - 125	24	30
Ethylbenzene	0.0500	0.0519		mg/Kg		104	61 - 136	4	30
2-Hexanone	0.0500	0.0567		mg/Kg		113	48 - 146	21	30
Methylene Chloride	0.0500	0.0577		mg/Kg		115	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0589		mg/Kg		118	50 - 148	19	30
Methyl tert-butyl ether	0.0500	0.0629		mg/Kg		126	50 - 140	5	30
Styrene	0.0500	0.0517		mg/Kg		103	70 - 125	4	30
1,1,2,2-Tetrachloroethane	0.0500	0.0536		mg/Kg		107	70 - 122	11	30
Tetrachloroethene	0.0500	0.0506		mg/Kg		101	70 - 124	0	30
Toluene	0.0500	0.0521		mg/Kg		104	70 - 125	3	30
trans-1,2-Dichloroethene	0.0500	0.0585		mg/Kg		117	70 - 125	7	30
trans-1,3-Dichloropropene	0.0500	0.0539		mg/Kg		108	70 - 125	4	30
1,1,1-Trichloroethane	0.0500	0.0501		mg/Kg		100	70 - 128	9	30
1,1,2-Trichloroethane	0.0500	0.0550		mg/Kg		110	70 - 125	11	30
Trichloroethene	0.0500	0.0505		mg/Kg		101	70 - 125	6	30
Vinyl acetate	0.0500	0.0717	*	mg/Kg		143	40 - 153	41	30
Vinyl chloride	0.0500	0.0556		mg/Kg		111	70 - 125	3	30
Xylenes, Total	0.100	0.101		mg/Kg		101	53 - 147	2	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		75 - 131
Dibromofluoromethane	103		75 - 126
1,2-Dichloroethane-d4 (Surr)	96		70 - 134
Toluene-d8 (Surr)	109		75 - 124

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-432892/1-A
Matrix: Solid
Analysis Batch: 432977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432892

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/18/18 07:39	05/18/18 18:39	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-432892/1-A
Matrix: Solid
Analysis Batch: 432977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/18/18 07:39	05/18/18 18:39	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/18/18 07:39	05/18/18 18:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133	05/18/18 07:39	05/18/18 18:39	1
Phenol-d5	111		46 - 125	05/18/18 07:39	05/18/18 18:39	1
Nitrobenzene-d5	86		41 - 120	05/18/18 07:39	05/18/18 18:39	1
2-Fluorobiphenyl	102		44 - 121	05/18/18 07:39	05/18/18 18:39	1
2,4,6-Tribromophenol	79		25 - 139	05/18/18 07:39	05/18/18 18:39	1
Terphenyl-d14	132		35 - 160	05/18/18 07:39	05/18/18 18:39	1

Lab Sample ID: LCS 500-432892/2-A
Matrix: Solid
Analysis Batch: 432977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.15		mg/Kg		86	56 - 122
Bis(2-chloroethyl)ether	1.33	1.05		mg/Kg		79	55 - 111
1,3-Dichlorobenzene	1.33	1.12		mg/Kg		84	60 - 110
1,4-Dichlorobenzene	1.33	1.12		mg/Kg		84	61 - 110
1,2-Dichlorobenzene	1.33	1.14		mg/Kg		86	62 - 110
2-Methylphenol	1.33	1.18		mg/Kg		88	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.998		mg/Kg		75	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.12		mg/Kg		84	56 - 118
Hexachloroethane	1.33	1.08		mg/Kg		81	61 - 110
2-Chlorophenol	1.33	1.17		mg/Kg		88	64 - 110
Nitrobenzene	1.33	1.13		mg/Kg		85	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.11		mg/Kg		84	60 - 112
1,2,4-Trichlorobenzene	1.33	1.19		mg/Kg		89	62 - 110
Isophorone	1.33	1.11		mg/Kg		83	55 - 110
2,4-Dimethylphenol	1.33	1.16		mg/Kg		87	60 - 110
Hexachlorobutadiene	1.33	1.21		mg/Kg		90	56 - 120
Naphthalene	1.33	1.18		mg/Kg		89	63 - 110
2,4-Dichlorophenol	1.33	1.18		mg/Kg		88	58 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432892/2-A

Matrix: Solid

Analysis Batch: 432977

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.16		mg/Kg		87	30 - 150
2,4,6-Trichlorophenol	1.33	1.17		mg/Kg		88	57 - 120
2,4,5-Trichlorophenol	1.33	1.16		mg/Kg		87	50 - 120
Hexachlorocyclopentadiene	1.33	1.11		mg/Kg		83	10 - 106
2-Methylnaphthalene	1.33	1.23		mg/Kg		92	62 - 110
2-Nitroaniline	1.33	1.08		mg/Kg		81	57 - 124
2-Chloronaphthalene	1.33	1.17		mg/Kg		88	64 - 110
4-Chloro-3-methylphenol	1.33	1.13		mg/Kg		85	61 - 114
2,6-Dinitrotoluene	1.33	1.09		mg/Kg		81	67 - 120
2-Nitrophenol	1.33	1.15		mg/Kg		86	60 - 120
3-Nitroaniline	1.33	0.955		mg/Kg		72	40 - 122
Dimethyl phthalate	1.33	1.17		mg/Kg		88	64 - 110
2,4-Dinitrophenol	2.67	0.899		mg/Kg		34	10 - 100
Acenaphthylene	1.33	1.22		mg/Kg		92	60 - 110
2,4-Dinitrotoluene	1.33	1.25		mg/Kg		94	62 - 117
Acenaphthene	1.33	1.20		mg/Kg		90	58 - 110
Dibenzofuran	1.33	1.18		mg/Kg		89	64 - 110
4-Nitrophenol	2.67	2.02		mg/Kg		76	30 - 122
Fluorene	1.33	1.22		mg/Kg		92	62 - 120
4-Nitroaniline	1.33	1.26		mg/Kg		94	60 - 160
4-Bromophenyl phenyl ether	1.33	1.19		mg/Kg		89	63 - 110
Hexachlorobenzene	1.33	1.28		mg/Kg		96	55 - 117
Diethyl phthalate	1.33	1.17		mg/Kg		87	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.17		mg/Kg		88	63 - 110
Pentachlorophenol	2.67	2.22		mg/Kg		83	13 - 112
N-Nitrosodiphenylamine	1.33	1.35		mg/Kg		101	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.43		mg/Kg		54	10 - 110
Phenanthrene	1.33	1.24		mg/Kg		93	62 - 120
Anthracene	1.33	1.24		mg/Kg		93	63 - 110
Carbazole	1.33	1.72		mg/Kg		129	59 - 158
Di-n-butyl phthalate	1.33	1.16		mg/Kg		87	65 - 120
Fluoranthene	1.33	1.26		mg/Kg		95	62 - 120
Pyrene	1.33	1.34		mg/Kg		100	63 - 120
Butyl benzyl phthalate	1.33	1.21		mg/Kg		91	61 - 116
Benzo[a]anthracene	1.33	1.25		mg/Kg		94	63 - 110
Chrysene	1.33	1.30		mg/Kg		98	63 - 120
3,3'-Dichlorobenzidine	1.33	1.32		mg/Kg		99	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.20		mg/Kg		90	63 - 118
Di-n-octyl phthalate	1.33	1.11		mg/Kg		83	63 - 119
Benzo[b]fluoranthene	1.33	1.26		mg/Kg		94	62 - 120
Benzo[k]fluoranthene	1.33	1.28		mg/Kg		96	65 - 120
Benzo[a]pyrene	1.33	1.20		mg/Kg		90	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.31		mg/Kg		99	57 - 127
Dibenz(a,h)anthracene	1.33	1.21		mg/Kg		91	64 - 119
Benzo[g,h,i]perylene	1.33	1.26		mg/Kg		95	64 - 120
3 & 4 Methylphenol	1.33	1.16		mg/Kg		87	57 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-432892/2-A
Matrix: Solid
Analysis Batch: 432977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432892

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	117		46 - 133
Phenol-d5	109		46 - 125
Nitrobenzene-d5	92		41 - 120
2-Fluorobiphenyl	105		44 - 121
2,4,6-Tribromophenol	93		25 - 139
Terphenyl-d14	113		35 - 160

Lab Sample ID: 500-145298-11 MS
Matrix: Solid
Analysis Batch: 432977

Client Sample ID: 2273V-02-B24 (0-6)
Prep Type: Total/NA
Prep Batch: 432892

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	<0.19		1.53	1.23		mg/Kg	☼	81	56 - 122
Bis(2-chloroethyl)ether	<0.19		1.53	1.60		mg/Kg	☼	105	55 - 111
1,3-Dichlorobenzene	<0.19		1.53	1.13		mg/Kg	☼	74	60 - 110
1,4-Dichlorobenzene	<0.19		1.53	1.15		mg/Kg	☼	76	61 - 110
1,2-Dichlorobenzene	<0.19		1.53	1.17		mg/Kg	☼	77	62 - 110
2-Methylphenol	<0.19		1.53	1.27		mg/Kg	☼	83	60 - 120
2,2'-oxybis[1-chloropropane]	<0.19		1.53	1.09		mg/Kg	☼	71	40 - 124
N-Nitrosodi-n-propylamine	<0.077		1.53	1.20		mg/Kg	☼	78	56 - 118
Hexachloroethane	<0.19		1.53	1.01		mg/Kg	☼	66	61 - 110
2-Chlorophenol	<0.19		1.53	1.24		mg/Kg	☼	81	64 - 110
Nitrobenzene	<0.038		1.53	1.19		mg/Kg	☼	78	60 - 116
Bis(2-chloroethoxy)methane	<0.19		1.53	1.17		mg/Kg	☼	77	60 - 112
1,2,4-Trichlorobenzene	<0.19		1.53	1.22		mg/Kg	☼	80	62 - 110
Isophorone	<0.19		1.53	1.16		mg/Kg	☼	76	55 - 110
2,4-Dimethylphenol	<0.38		1.53	1.31		mg/Kg	☼	86	60 - 110
Hexachlorobutadiene	<0.19		1.53	1.02		mg/Kg	☼	67	56 - 120
Naphthalene	<0.038		1.53	1.24		mg/Kg	☼	82	63 - 110
2,4-Dichlorophenol	<0.38		1.53	1.23		mg/Kg	☼	80	58 - 120
4-Chloroaniline	<0.77		1.53	1.04		mg/Kg	☼	68	30 - 150
2,4,6-Trichlorophenol	<0.38		1.53	1.07		mg/Kg	☼	70	57 - 120
2,4,5-Trichlorophenol	<0.38		1.53	1.26		mg/Kg	☼	82	50 - 120
Hexachlorocyclopentadiene	<0.77		1.53	0.718	J	mg/Kg	☼	47	10 - 106
2-Methylnaphthalene	<0.077		1.53	1.29		mg/Kg	☼	85	62 - 110
2-Nitroaniline	<0.19		1.53	1.14		mg/Kg	☼	74	57 - 124
2-Chloronaphthalene	<0.19		1.53	1.20		mg/Kg	☼	79	64 - 110
4-Chloro-3-methylphenol	<0.38		1.53	1.26		mg/Kg	☼	82	61 - 114
2,6-Dinitrotoluene	<0.19		1.53	1.14		mg/Kg	☼	75	67 - 120
2-Nitrophenol	<0.38		1.53	1.23		mg/Kg	☼	81	60 - 120
3-Nitroaniline	<0.38		1.53	1.22		mg/Kg	☼	80	40 - 122
Dimethyl phthalate	<0.19		1.53	1.24		mg/Kg	☼	81	64 - 110
2,4-Dinitrophenol	<0.77	F1	3.05	<0.77	F1	mg/Kg	☼	0	10 - 100
Acenaphthylene	<0.038		1.53	1.27		mg/Kg	☼	83	60 - 110
2,4-Dinitrotoluene	<0.19		1.53	1.29		mg/Kg	☼	85	62 - 117
Acenaphthene	<0.038		1.53	1.25		mg/Kg	☼	82	58 - 110
Dibenzofuran	<0.19		1.53	1.26		mg/Kg	☼	83	64 - 110
4-Nitrophenol	<0.77		3.05	1.93		mg/Kg	☼	63	30 - 122

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-11 MS

Matrix: Solid

Analysis Batch: 432977

Client Sample ID: 2273V-02-B24 (0-6)

Prep Type: Total/NA

Prep Batch: 432892

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Fluorene	<0.038		1.53	1.30		mg/Kg	☼	85	62 - 120
4-Nitroaniline	<0.38		1.53	1.29		mg/Kg	☼	84	60 - 160
4-Bromophenyl phenyl ether	<0.19		1.53	1.28		mg/Kg	☼	84	63 - 110
Hexachlorobenzene	<0.077		1.53	1.36		mg/Kg	☼	89	55 - 117
Diethyl phthalate	<0.19		1.53	1.25		mg/Kg	☼	82	58 - 120
4-Chlorophenyl phenyl ether	<0.19		1.53	1.21		mg/Kg	☼	79	63 - 110
Pentachlorophenol	<0.77		3.05	1.18		mg/Kg	☼	39	13 - 112
N-Nitrosodiphenylamine	<0.19		1.53	1.44		mg/Kg	☼	94	65 - 112
4,6-Dinitro-2-methylphenol	<0.77		3.05	0.624	J	mg/Kg	☼	20	10 - 110
Phenanthrene	<0.038		1.53	1.35		mg/Kg	☼	89	62 - 120
Anthracene	<0.038		1.53	1.34		mg/Kg	☼	88	63 - 110
Carbazole	<0.19		1.53	1.80		mg/Kg	☼	118	59 - 158
Di-n-butyl phthalate	<0.19		1.53	1.26		mg/Kg	☼	82	65 - 120
Fluoranthene	<0.038		1.53	1.37		mg/Kg	☼	90	62 - 120
Pyrene	<0.038		1.53	1.42		mg/Kg	☼	93	63 - 120
Butyl benzyl phthalate	<0.19		1.53	1.30		mg/Kg	☼	85	61 - 116
Benzo[a]anthracene	<0.038		1.53	1.36		mg/Kg	☼	89	63 - 110
Chrysene	<0.038		1.53	1.39		mg/Kg	☼	91	63 - 120
3,3'-Dichlorobenzidine	<0.19		1.53	1.48		mg/Kg	☼	97	49 - 112
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.28		mg/Kg	☼	84	63 - 118
Di-n-octyl phthalate	<0.19		1.53	1.25		mg/Kg	☼	82	63 - 119
Benzo[b]fluoranthene	<0.038		1.53	1.34		mg/Kg	☼	88	62 - 120
Benzo[k]fluoranthene	<0.038		1.53	1.38		mg/Kg	☼	90	65 - 120
Benzo[a]pyrene	<0.038		1.53	1.31		mg/Kg	☼	86	61 - 120
Indeno[1,2,3-cd]pyrene	<0.038		1.53	1.41		mg/Kg	☼	92	57 - 127
Dibenz(a,h)anthracene	<0.038		1.53	1.31		mg/Kg	☼	86	64 - 119
Benzo[g,h,i]perylene	<0.038		1.53	1.35		mg/Kg	☼	89	64 - 120
3 & 4 Methylphenol	<0.19		1.53	1.34		mg/Kg	☼	88	57 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol	108		46 - 133
Phenol-d5	99		46 - 125
Nitrobenzene-d5	85		41 - 120
2-Fluorobiphenyl	92		44 - 121
2,4,6-Tribromophenol	73		25 - 139
Terphenyl-d14	104		35 - 160

Lab Sample ID: 500-145298-11 MSD

Matrix: Solid

Analysis Batch: 433328

Client Sample ID: 2273V-02-B24 (0-6)

Prep Type: Total/NA

Prep Batch: 432892

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phenol	<0.19		1.53	1.12		mg/Kg	☼	74	56 - 122	9	30
Bis(2-chloroethyl)ether	<0.19		1.53	1.71	F1	mg/Kg	☼	112	55 - 111	6	30
1,3-Dichlorobenzene	<0.19		1.53	1.07		mg/Kg	☼	70	60 - 110	6	30
1,4-Dichlorobenzene	<0.19		1.53	1.08		mg/Kg	☼	71	61 - 110	7	30
1,2-Dichlorobenzene	<0.19		1.53	1.09		mg/Kg	☼	71	62 - 110	7	30
2-Methylphenol	<0.19		1.53	1.43		mg/Kg	☼	94	60 - 120	12	30

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-11 MSD

Matrix: Solid

Analysis Batch: 433328

Client Sample ID: 2273V-02-B24 (0-6)

Prep Type: Total/NA

Prep Batch: 432892

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result			Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	<0.19		1.53	1.13		mg/Kg	☼	74	40 - 124	3	30
N-Nitrosodi-n-propylamine	<0.077		1.53	1.24		mg/Kg	☼	81	56 - 118	4	30
Hexachloroethane	<0.19		1.53	0.988		mg/Kg	☼	65	61 - 110	2	30
2-Chlorophenol	<0.19		1.53	1.25		mg/Kg	☼	82	64 - 110	1	30
Nitrobenzene	<0.038		1.53	1.18		mg/Kg	☼	77	60 - 116	0	30
Bis(2-chloroethoxy)methane	<0.19		1.53	1.17		mg/Kg	☼	77	60 - 112	0	30
1,2,4-Trichlorobenzene	<0.19		1.53	1.15		mg/Kg	☼	75	62 - 110	6	30
Isophorone	<0.19		1.53	1.17		mg/Kg	☼	77	55 - 110	1	30
2,4-Dimethylphenol	<0.38		1.53	1.14		mg/Kg	☼	75	60 - 110	14	30
Hexachlorobutadiene	<0.19		1.53	1.10		mg/Kg	☼	72	56 - 120	7	30
Naphthalene	<0.038		1.53	1.25		mg/Kg	☼	82	63 - 110	1	30
2,4-Dichlorophenol	<0.38		1.53	1.18		mg/Kg	☼	77	58 - 120	4	30
4-Chloroaniline	<0.77		1.53	0.879		mg/Kg	☼	58	30 - 150	17	30
2,4,6-Trichlorophenol	<0.38		1.53	1.16		mg/Kg	☼	76	57 - 120	9	30
2,4,5-Trichlorophenol	<0.38		1.53	1.11		mg/Kg	☼	73	50 - 120	12	30
Hexachlorocyclopentadiene	<0.77		1.53	0.569	J	mg/Kg	☼	37	10 - 106	23	30
2-Methylnaphthalene	<0.077		1.53	1.29		mg/Kg	☼	84	62 - 110	0	30
2-Nitroaniline	<0.19		1.53	1.14		mg/Kg	☼	74	57 - 124	0	30
2-Chloronaphthalene	<0.19		1.53	1.25		mg/Kg	☼	82	64 - 110	4	30
4-Chloro-3-methylphenol	<0.38		1.53	1.12		mg/Kg	☼	73	61 - 114	12	30
2,6-Dinitrotoluene	<0.19		1.53	1.28		mg/Kg	☼	84	67 - 120	12	30
2-Nitrophenol	<0.38		1.53	1.15		mg/Kg	☼	75	60 - 120	7	30
3-Nitroaniline	<0.38		1.53	1.08		mg/Kg	☼	71	40 - 122	12	30
Dimethyl phthalate	<0.19		1.53	1.30		mg/Kg	☼	85	64 - 110	4	30
2,4-Dinitrophenol	<0.77	F1	3.06	0.765	J	mg/Kg	☼	25	10 - 100	NC	30
Acenaphthylene	<0.038		1.53	1.28		mg/Kg	☼	84	60 - 110	0	30
2,4-Dinitrotoluene	<0.19		1.53	1.18		mg/Kg	☼	77	62 - 117	9	30
Acenaphthene	<0.038		1.53	1.31		mg/Kg	☼	85	58 - 110	4	30
Dibenzofuran	<0.19		1.53	1.34		mg/Kg	☼	88	64 - 110	6	30
4-Nitrophenol	<0.77		3.06	1.95		mg/Kg	☼	64	30 - 122	1	30
Fluorene	<0.038		1.53	1.17		mg/Kg	☼	77	62 - 120	11	30
4-Nitroaniline	<0.38		1.53	1.08		mg/Kg	☼	71	60 - 160	18	30
4-Bromophenyl phenyl ether	<0.19		1.53	1.27		mg/Kg	☼	83	63 - 110	1	30
Hexachlorobenzene	<0.077		1.53	1.33		mg/Kg	☼	87	55 - 117	2	30
Diethyl phthalate	<0.19		1.53	1.37		mg/Kg	☼	90	58 - 120	9	30
4-Chlorophenyl phenyl ether	<0.19		1.53	1.23		mg/Kg	☼	80	63 - 110	1	30
Pentachlorophenol	<0.77		3.06	2.08	F2	mg/Kg	☼	68	13 - 112	55	30
N-Nitrosodiphenylamine	<0.19		1.53	1.42		mg/Kg	☼	93	65 - 112	1	30
4,6-Dinitro-2-methylphenol	<0.77		3.06	1.13	F2	mg/Kg	☼	37	10 - 110	58	30
Phenanthrene	<0.038		1.53	1.43		mg/Kg	☼	94	62 - 120	6	30
Anthracene	<0.038		1.53	1.48		mg/Kg	☼	97	63 - 110	10	30
Carbazole	<0.19		1.53	1.60		mg/Kg	☼	105	59 - 158	12	30
Di-n-butyl phthalate	<0.19		1.53	1.44		mg/Kg	☼	94	65 - 120	14	30
Fluoranthene	<0.038		1.53	1.44		mg/Kg	☼	95	62 - 120	5	30
Pyrene	<0.038		1.53	1.46		mg/Kg	☼	96	63 - 120	3	30
Butyl benzyl phthalate	<0.19		1.53	1.34		mg/Kg	☼	88	61 - 116	3	30
Benzo[a]anthracene	<0.038		1.53	1.50		mg/Kg	☼	98	63 - 110	10	30
Chrysene	<0.038		1.53	1.46		mg/Kg	☼	96	63 - 120	5	30
3,3'-Dichlorobenzidine	<0.19		1.53	1.14		mg/Kg	☼	75	49 - 112	26	30

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-145298-11 MSD
Matrix: Solid
Analysis Batch: 433328

Client Sample ID: 2273V-02-B24 (0-6)
Prep Type: Total/NA
Prep Batch: 432892

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.38		mg/Kg	☼	90	63 - 118	8	30	
Di-n-octyl phthalate	<0.19		1.53	1.33		mg/Kg	☼	87	63 - 119	6	30	
Benzo[b]fluoranthene	<0.038		1.53	1.35		mg/Kg	☼	89	62 - 120	1	30	
Benzo[k]fluoranthene	<0.038		1.53	1.48		mg/Kg	☼	97	65 - 120	7	30	
Benzo[a]pyrene	<0.038		1.53	1.40		mg/Kg	☼	92	61 - 120	7	30	
Indeno[1,2,3-cd]pyrene	<0.038		1.53	1.17		mg/Kg	☼	77	57 - 127	18	30	
Dibenz(a,h)anthracene	<0.038		1.53	1.24		mg/Kg	☼	81	64 - 119	6	30	
Benzo[g,h,i]perylene	<0.038		1.53	1.06		mg/Kg	☼	69	64 - 120	24	30	
3 & 4 Methylphenol	<0.19		1.53	1.17		mg/Kg	☼	77	57 - 120	14	30	

Surrogate	MSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol	91		46 - 133
Phenol-d5	79		46 - 125
Nitrobenzene-d5	90		41 - 120
2-Fluorobiphenyl	97		44 - 121
2,4,6-Tribromophenol	83		25 - 139
Terphenyl-d14	114		35 - 160

Lab Sample ID: MB 500-433188/1-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433188

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Isophorone	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		05/21/18 07:31	05/22/18 11:44	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-433188/1-A
Matrix: Solid
Analysis Batch: 433360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433188

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Carbazole	<0.17		0.17	0.083	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		05/21/18 07:31	05/22/18 11:44	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		05/21/18 07:31	05/22/18 11:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	112		46 - 133	05/21/18 07:31	05/22/18 11:44	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 11:44	1
Nitrobenzene-d5	88		41 - 120	05/21/18 07:31	05/22/18 11:44	1
2-Fluorobiphenyl	142	X	44 - 121	05/21/18 07:31	05/22/18 11:44	1
2,4,6-Tribromophenol	108		25 - 139	05/21/18 07:31	05/22/18 11:44	1
Terphenyl-d14	114		35 - 160	05/21/18 07:31	05/22/18 11:44	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-433188/2-A

Matrix: Solid

Analysis Batch: 433360

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 433188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.38		mg/Kg		104	56 - 122
Bis(2-chloroethyl)ether	1.33	1.14		mg/Kg		86	55 - 111
1,3-Dichlorobenzene	1.33	1.23		mg/Kg		92	60 - 110
1,4-Dichlorobenzene	1.33	1.22		mg/Kg		92	61 - 110
1,2-Dichlorobenzene	1.33	1.23		mg/Kg		92	62 - 110
2-Methylphenol	1.33	1.18		mg/Kg		89	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.678		mg/Kg		51	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.03		mg/Kg		77	56 - 118
Hexachloroethane	1.33	1.24		mg/Kg		93	61 - 110
2-Chlorophenol	1.33	1.33		mg/Kg		100	64 - 110
Nitrobenzene	1.33	1.28		mg/Kg		96	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.22		mg/Kg		91	60 - 112
1,2,4-Trichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
Isophorone	1.33	1.18		mg/Kg		88	55 - 110
2,4-Dimethylphenol	1.33	1.22		mg/Kg		92	60 - 110
Hexachlorobutadiene	1.33	1.33		mg/Kg		100	56 - 120
Naphthalene	1.33	1.24		mg/Kg		93	63 - 110
2,4-Dichlorophenol	1.33	1.38		mg/Kg		104	58 - 120
4-Chloroaniline	1.33	1.15		mg/Kg		86	30 - 150
2,4,6-Trichlorophenol	1.33	1.32		mg/Kg		99	57 - 120
2,4,5-Trichlorophenol	1.33	1.37		mg/Kg		103	50 - 120
Hexachlorocyclopentadiene	1.33	1.01		mg/Kg		76	10 - 106
2-Methylnaphthalene	1.33	1.25		mg/Kg		94	62 - 110
2-Nitroaniline	1.33	1.20		mg/Kg		90	57 - 124
2-Chloronaphthalene	1.33	1.25		mg/Kg		94	64 - 110
4-Chloro-3-methylphenol	1.33	1.33		mg/Kg		100	61 - 114
2,6-Dinitrotoluene	1.33	1.32		mg/Kg		99	67 - 120
2-Nitrophenol	1.33	1.42		mg/Kg		106	60 - 120
3-Nitroaniline	1.33	0.903		mg/Kg		68	40 - 122
Dimethyl phthalate	1.33	1.27		mg/Kg		95	64 - 110
2,4-Dinitrophenol	2.67	0.904		mg/Kg		34	10 - 100
Acenaphthylene	1.33	1.27		mg/Kg		96	60 - 110
2,4-Dinitrotoluene	1.33	1.33		mg/Kg		100	62 - 117
Acenaphthene	1.33	1.29		mg/Kg		96	58 - 110
Dibenzofuran	1.33	1.28		mg/Kg		96	64 - 110
4-Nitrophenol	2.67	2.19		mg/Kg		82	30 - 122
Fluorene	1.33	1.27		mg/Kg		96	62 - 120
4-Nitroaniline	1.33	1.17		mg/Kg		88	60 - 160
4-Bromophenyl phenyl ether	1.33	1.36		mg/Kg		102	63 - 110
Hexachlorobenzene	1.33	1.45		mg/Kg		108	55 - 117
Diethyl phthalate	1.33	1.25		mg/Kg		93	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.29		mg/Kg		97	63 - 110
Pentachlorophenol	2.67	2.03		mg/Kg		76	13 - 112
N-Nitrosodiphenylamine	1.33	1.33		mg/Kg		100	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.42		mg/Kg		53	10 - 110
Phenanthrene	1.33	1.28		mg/Kg		96	62 - 120
Anthracene	1.33	1.31		mg/Kg		98	63 - 110
Carbazole	1.33	1.42		mg/Kg		106	59 - 158

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-433188/2-A

Matrix: Solid

Analysis Batch: 433360

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 433188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Di-n-butyl phthalate	1.33	1.29		mg/Kg		97	65 - 120
Fluoranthene	1.33	1.40		mg/Kg		105	62 - 120
Pyrene	1.33	1.42		mg/Kg		107	63 - 120
Butyl benzyl phthalate	1.33	1.38		mg/Kg		104	61 - 116
Benzo[a]anthracene	1.33	1.38		mg/Kg		103	63 - 110
Chrysene	1.33	1.47		mg/Kg		110	63 - 120
3,3'-Dichlorobenzidine	1.33	1.21		mg/Kg		91	49 - 112
Bis(2-ethylhexyl) phthalate	1.33	1.31		mg/Kg		98	63 - 118
Di-n-octyl phthalate	1.33	1.38		mg/Kg		104	63 - 119
Benzo[b]fluoranthene	1.33	1.36		mg/Kg		102	62 - 120
Benzo[k]fluoranthene	1.33	1.33		mg/Kg		100	65 - 120
Benzo[a]pyrene	1.33	1.40		mg/Kg		105	61 - 120
Indeno[1,2,3-cd]pyrene	1.33	1.51		mg/Kg		113	57 - 127
Dibenz(a,h)anthracene	1.33	1.33		mg/Kg		100	64 - 119
Benzo[g,h,i]perylene	1.33	1.49		mg/Kg		112	64 - 120
3 & 4 Methylphenol	1.33	1.16		mg/Kg		87	57 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	111		46 - 133
Phenol-d5	100		46 - 125
Nitrobenzene-d5	95		41 - 120
2-Fluorobiphenyl	102		44 - 121
2,4,6-Tribromophenol	102		25 - 139
Terphenyl-d14	122		35 - 160

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-431918/1-A

Matrix: Solid

Analysis Batch: 432522

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 431918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Arsenic	<1.0		1.0	0.34	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Barium	<1.0		1.0	0.11	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Beryllium	<0.40		0.40	0.093	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Boron	0.498	J	5.0	0.47	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Cadmium	0.117	J	0.20	0.036	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Calcium	10.8	J	20	3.4	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Chromium	<1.0		1.0	0.50	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Cobalt	<0.50		0.50	0.13	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Copper	<1.0		1.0	0.28	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Iron	<20		20	10	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Lead	<0.50		0.50	0.23	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Magnesium	<10		10	5.0	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Manganese	0.182	J	1.0	0.15	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Nickel	<1.0		1.0	0.29	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Potassium	<50		50	18	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Silver	<0.50		0.50	0.13	mg/Kg		05/11/18 17:09	05/16/18 01:16	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 500-431918/1-A
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<100		100	15	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Thallium	<1.0		1.0	0.50	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Vanadium	<0.50		0.50	0.12	mg/Kg		05/11/18 17:09	05/16/18 01:16	1
Zinc	2.85		2.0	0.88	mg/Kg		05/11/18 17:09	05/16/18 01:16	1

Lab Sample ID: MB 500-431918/1-A
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<1.0		1.0	0.59	mg/Kg		05/11/18 17:09	05/16/18 20:18	1

Lab Sample ID: LCS 500-431918/2-A
Matrix: Solid
Analysis Batch: 432522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	45.5		mg/Kg		91	80 - 120
Arsenic	10.0	9.17		mg/Kg		92	80 - 120
Barium	200	189		mg/Kg		95	80 - 120
Beryllium	5.00	4.60		mg/Kg		92	80 - 120
Boron	100	82.7		mg/Kg		83	80 - 120
Cadmium	5.00	4.68		mg/Kg		94	80 - 120
Calcium	1000	938		mg/Kg		94	80 - 120
Chromium	20.0	18.9		mg/Kg		95	80 - 120
Cobalt	50.0	46.2		mg/Kg		92	80 - 120
Copper	25.0	23.8		mg/Kg		95	80 - 120
Iron	100	101		mg/Kg		101	80 - 120
Lead	10.0	8.96		mg/Kg		90	80 - 120
Magnesium	1000	902		mg/Kg		90	80 - 120
Manganese	50.0	47.2		mg/Kg		94	80 - 120
Nickel	50.0	45.6		mg/Kg		91	80 - 120
Potassium	1000	950		mg/Kg		95	80 - 120
Silver	5.00	4.41		mg/Kg		88	80 - 120
Sodium	1000	951		mg/Kg		95	80 - 120
Thallium	10.0	8.41		mg/Kg		84	80 - 120
Vanadium	50.0	47.4		mg/Kg		95	80 - 120
Zinc	50.0	45.9		mg/Kg		92	80 - 120

Lab Sample ID: LCS 500-431918/2-A
Matrix: Solid
Analysis Batch: 432693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	10.0	8.70		mg/Kg		87	80 - 120

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-432389/2-B
Matrix: Solid
Analysis Batch: 433204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432389
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.489		mg/L		98	80 - 120

Lab Sample ID: LCS 500-432394/2-A
Matrix: Solid
Analysis Batch: 432694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432394
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.511		mg/L		102	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Boron	1.00	0.914		mg/L		91	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Chromium	0.200	0.196		mg/L		98	80 - 120
Cobalt	0.500	0.492		mg/L		98	80 - 120
Iron	1.00	0.986		mg/L		99	80 - 120
Lead	0.100	0.0923		mg/L		92	80 - 120
Manganese	0.500	0.482		mg/L		96	80 - 120
Nickel	0.500	0.487		mg/L		97	80 - 120
Selenium	0.100	0.0966		mg/L		97	80 - 120
Silver	0.0500	0.0464		mg/L		93	80 - 120
Zinc	0.500	0.476	J	mg/L		95	80 - 120

Lab Sample ID: LB 500-432149/1-B
Matrix: Solid
Analysis Batch: 432694

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432394

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 00:36	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 00:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 00:36	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Iron	<0.40		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 00:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 00:36	1
Manganese	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 00:36	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 00:36	1
Zinc	<0.50		0.50	0.020	mg/L		05/15/18 15:33	05/17/18 00:36	1

Lab Sample ID: LB 500-432144/1-D
Matrix: Solid
Analysis Batch: 433204

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 432389

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 02:42	1

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-432394/2-A
Matrix: Solid
Analysis Batch: 433392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432394
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.513		mg/L		103	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LB 500-432149/1-B
Matrix: Solid
Analysis Batch: 433392

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 432394

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 13:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 13:24	1

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-433740/12-A
Matrix: Solid
Analysis Batch: 433784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433740

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 06:13	1

Lab Sample ID: LCS 500-433740/13-A
Matrix: Solid
Analysis Batch: 433784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433740
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-433400/12-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/22/18 15:55	05/24/18 10:17	1

Lab Sample ID: LCS 500-433400/13-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433400
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

Lab Sample ID: 500-145298-6 MS
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: 2273V-02-B19 (0-6)
Prep Type: Total/NA
Prep Batch: 433400
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.013	J	0.0833	0.0925		mg/Kg	✱	95	75 - 125

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QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 500-145298-6 MSD
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: 2273V-02-B19 (0-6)
Prep Type: Total/NA
Prep Batch: 433400

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.013	J	0.0813	0.0837		mg/Kg	☼	87	75 - 125	10	20

Lab Sample ID: 500-145298-6 DU
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: 2273V-02-B19 (0-6)
Prep Type: Total/NA
Prep Batch: 433400

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.013	J	0.0154	J	mg/Kg	☼	15	20

Lab Sample ID: MB 500-433403/12-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		05/22/18 15:55	05/24/18 11:07	1

Lab Sample ID: LCS 500-433403/13-A
Matrix: Solid
Analysis Batch: 433853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.179		mg/Kg		107	80 - 120

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:07	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:04	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:45	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:30	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929	(Start) 05/17/18 15:33 (End) 05/17/18 15:35	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B18 (0-6)

Lab Sample ID: 500-145298-5

Date Collected: 05/10/18 09:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432916	05/18/18 11:50	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 19:48	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:03	PJ1	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		10	432693	05/16/18 20:58	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:47	EEN	TAL CHI

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:11	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:08	PJ1	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:49	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:32	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
					(Start)	05/17/18 15:35		
					(End)	05/17/18 15:38		
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B19 (0-6)

Lab Sample ID: 500-145298-6

Date Collected: 05/10/18 09:17

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432712	05/17/18 20:32	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 17:34	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:07	PJ1	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		10	432693	05/16/18 21:02	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:49	EEN	TAL CHI

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:15	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:12	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:52	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:35	PFK	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B20 (0-4)

Lab Sample ID: 500-145298-7

Date Collected: 05/10/18 09:47

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432916	05/18/18 12:16	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 18:01	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:11	PJ1	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		10	432693	05/16/18 21:05	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 10:58	EEN	TAL CHI

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:19	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:24	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 13:56	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:42	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
					(Start)	05/17/18 15:40		
					(End)	05/17/18 15:43		
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B21 (0-4)

Lab Sample ID: 500-145298-8

Date Collected: 05/10/18 09:55

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432916	05/18/18 13:10	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 18:28	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:15	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 11:00	EEN	TAL CHI

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:28	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 14:06	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:44	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929		SMO	TAL CHI
					(Start)	05/17/18 15:43		
					(End)	05/17/18 15:46		
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B22 (0-5)

Lab Sample ID: 500-145298-9

Date Collected: 05/10/18 10:05

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432713	05/17/18 15:19	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 16:40	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:19	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 11:03	EEN	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:35	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:32	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 14:10	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:46	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929	(Start) 05/17/18 15:46 (End) 05/17/18 15:48	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B23 (0-6)

Lab Sample ID: 500-145298-10

Date Collected: 05/10/18 10:33

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432713	05/17/18 15:47	DJD	TAL CHI
Total/NA	Prep	3541			433188	05/21/18 07:31	STW	TAL CHI
Total/NA	Analysis	8270D		1	433370	05/22/18 17:07	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:23	PJ1	TAL CHI
Total/NA	Prep	7471B			433400	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 11:05	EEN	TAL CHI

Client Sample ID: 2273V-02-B24 (0-6)

Lab Sample ID: 500-145298-11

Date Collected: 05/10/18 11:25

Matrix: Solid

Date Received: 05/10/18 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:39	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:36	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 14:14	FXG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B24 (0-6)

Date Collected: 05/10/18 11:25

Date Received: 05/10/18 18:00

Lab Sample ID: 500-145298-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:48	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929	(Start) 05/17/18 15:48 (End) 05/17/18 15:51	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Client Sample ID: 2273V-02-B24 (0-6)

Date Collected: 05/10/18 11:25

Date Received: 05/10/18 18:00

Lab Sample ID: 500-145298-11

Matrix: Solid

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432713	05/17/18 16:14	DJD	TAL CHI
Total/NA	Prep	3541			432892	05/18/18 07:39	STW	TAL CHI
Total/NA	Analysis	8270D		1	432977	05/18/18 23:31	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:27	PJ1	TAL CHI
Total/NA	Prep	7471B			433403	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 11:41	EEN	TAL CHI

Client Sample ID: 2273V-02-B25 (0-5)

Date Collected: 05/10/18 11:30

Date Received: 05/10/18 18:00

Lab Sample ID: 500-145298-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			432144	05/14/18 13:08	JLC	TAL CHI
SPLP East	Prep	3010A			432389	05/15/18 15:26	BDE	TAL CHI
SPLP East	Analysis	6010B		1	433204	05/19/18 03:43	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6010B		1	432694	05/17/18 01:41	PJ1	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	3010A			432394	05/15/18 15:33	BDE	TAL CHI
TCLP	Analysis	6020A		1	433392	05/21/18 14:17	FXG	TAL CHI
TCLP	Leach	1311			432149	05/14/18 13:56	JLC	TAL CHI
TCLP	Prep	7470A			433740	05/24/18 02:00	PFK	TAL CHI
TCLP	Analysis	7470A		1	433784	05/24/18 06:50	PFK	TAL CHI
Total/NA	Analysis	9045D		1	432929	(Start) 05/17/18 15:51 (End) 05/17/18 15:54	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	431889	05/11/18 15:03	LWN	TAL CHI

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Client Sample ID: 2273V-02-B25 (0-5)

Lab Sample ID: 500-145298-12

Date Collected: 05/10/18 11:30

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			432680	05/11/18 07:40	WRE	TAL CHI
Total/NA	Analysis	8260B		1	432713	05/17/18 16:41	DJD	TAL CHI
Total/NA	Prep	3541			432892	05/18/18 07:39	STW	TAL CHI
Total/NA	Analysis	8270D		1	432977	05/19/18 00:00	WDS	TAL CHI
Total/NA	Prep	3050B			431918	05/11/18 17:09	BDE	TAL CHI
Total/NA	Analysis	6010B		1	432522	05/16/18 02:31	PJ1	TAL CHI
Total/NA	Prep	7471B			433403	05/22/18 15:55	MJG	TAL CHI
Total/NA	Analysis	7471B		1	433853	05/24/18 11:43	EEN	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

Job ID: 500-145298-2

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145298

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 4.3, 4.8

Client		Client Project #		Preservative		Parameter														
E+E		1009341.0041.02																		
Project Name				Project Location/State				Lab Project #				Sampler				Lab PM				
176-001-W041A				Marengo, IL								MF, JH				D. Wright				
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix	VOL	SVOL	Total/TCLP Metals	pH	Percent Solids	Preservative Key							
		Date	Time	1. HCL, Cool to 4°	2. H2SO4, Cool to 4°								3. HNO3, Cool to 4°	4. NaOH, Cool to 4°	5. NaOH/Zn, Cool to 4°	6. NaHSO4	7. Cool to 4°	8. None	9. Other	Comments
5		2273V-02-B18(0-6)		5/10/18	0900	5	S	X	X	X	X	X								
6		2273V-02-B19(0-6)		5/10/18	0917	5	S	X	X	X	X	X								
7		2273V-02-B20(0-4)		5/10/18	0947	5	S	X	X	X	X	X								
8		2273V-02-B21(0-4)		5/10/18	0955	5	S	X	X	X	X	X								
9		2273V-02-B22(0-5)		5/10/18	1005	5	S	X	X	X	X	X								
10		2273V-02-B23(0-6)		5/10/18	1033	5	S	X	X	X	X	X								
11		2273V-02-B24(0-6)		5/10/18	1125	5	S	X	X	X	X	X								
12		2273V-02-B25(0-5)		5/10/18	1130	5	S	X	X	X	X	X								

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>J. Hughes</u> Company: <u>E+E</u> Date: <u>5/10/18</u> Time: <u>15:30</u>	Received By: <u>R. New</u> Company: <u>TA</u> Date: <u>5/10/18</u> Time: <u>15:30</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>P. New</u> Company: <u>TA</u> Date: <u>5/10/18</u> Time: <u>1:00</u>	Received By: <u>Shirley Lewis</u> Company: <u>TA-CHI</u> Date: <u>5/11/18</u> Time: <u>07:15</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145298-2

Login Number: 145298

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145298-4
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:17:56 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Job ID: 500-145298-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145298-4

Receipt

The samples were received on 5/10/2018 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.3° C and 4.8° C.

GC/MS VOA

Method(s) 8260B: The sample was analyzed 2 minutes outside the method specified 12 hour tune time. 2956V-10-B03 (0-6) (500-145298-21)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method(s) 6010B: The method blank for preparation batch 500-431918 and analytical batch 500-432522 contained Zinc above the reporting limit (RL). Associated samples 2956V-10-B01 (0-5) (500-145298-17), 2956V-10-B01 (5-9) (500-145298-18), 2956V-10-B02 (0-5) (500-145298-19), and 2956V-10-B02 (5-9) (500-145298-20) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

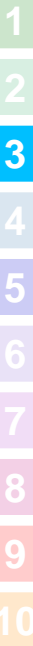
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (0-5)

Lab Sample ID: 500-145298-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		0.63	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	110		0.63	0.071	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.87		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Boron	5.8	B	3.1	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.13	0.023	mg/Kg	1	☼	6010B	Total/NA
Calcium	3800	B	13	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	22		0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.31	0.082	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	13	6.5	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4900		6.3	3.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	420	B	0.63	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		31	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.37		0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Sodium	460		63	9.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	34		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	42	B	1.3	0.55	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.41		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.030		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.028		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-10-B01 (5-9)

Lab Sample ID: 500-145298-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.55		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	2.9	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	2200	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	9.6		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2500		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	230	B	0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	830		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.36	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	30		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	30	B	1.1	0.50	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (5-9) (Continued)

Lab Sample ID: 500-145298-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.54		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-10-B02 (0-5)

Lab Sample ID: 500-145298-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.6		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	67		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	3.8	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	11000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.58	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.8		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	9.6		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8200		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.58	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	910		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.43	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	220		58	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	36		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	33	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.24	J F1	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-10-B02 (5-9)

Lab Sample ID: 500-145298-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.8		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	37		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7	B	2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	12		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (5-9) (Continued)

Lab Sample ID: 500-145298-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	5.8		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	12		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	10000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	4.4		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	43000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	230	B	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	320		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	24	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.020	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0087	J	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2956V-10-B03 (0-6)

Lab Sample ID: 500-145298-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016		0.014	0.0063	mg/Kg	1	☼	8260B	Total/NA
Arsenic	1.9		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	7.4	B	2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	93000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.9		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8000		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	3.1		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000	B	5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	170		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		26	9.4	mg/Kg	1	☼	6010B	Total/NA
Silver	0.093	J	0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Sodium	290		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	18		1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.031		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B03 (0-6) (Continued)

Lab Sample ID: 500-145298-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0087	J	0.017	0.0056	mg/Kg	1	*	7471B	Total/NA
pH	8.9		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago



Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145298-17	2956V-10-B01 (0-5)	Solid	05/10/18 12:48	05/10/18 18:00
500-145298-18	2956V-10-B01 (5-9)	Solid	05/10/18 12:50	05/10/18 18:00
500-145298-19	2956V-10-B02 (0-5)	Solid	05/10/18 12:57	05/10/18 18:00
500-145298-20	2956V-10-B02 (5-9)	Solid	05/10/18 13:00	05/10/18 18:00
500-145298-21	2956V-10-B03 (0-6)	Solid	05/10/18 13:01	05/10/18 18:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (0-5)

Lab Sample ID: 500-145298-17

Date Collected: 05/10/18 12:48

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	05/11/18 07:40	05/17/18 18:58	1
Dibromofluoromethane	111		75 - 126	05/11/18 07:40	05/17/18 18:58	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	05/11/18 07:40	05/17/18 18:58	1
Toluene-d8 (Surr)	107		75 - 124	05/11/18 07:40	05/17/18 18:58	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (0-5)

Lab Sample ID: 500-145298-17

Date Collected: 05/10/18 12:48

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (0-5)

Lab Sample ID: 500-145298-17

Date Collected: 05/10/18 12:48

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	05/18/18 07:39	05/18/18 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	83		46 - 133	05/18/18 07:39	05/18/18 22:17	1
Phenol-d5	75		46 - 125	05/18/18 07:39	05/18/18 22:17	1
Nitrobenzene-d5	85		41 - 120	05/18/18 07:39	05/18/18 22:17	1
2-Fluorobiphenyl	84		44 - 121	05/18/18 07:39	05/18/18 22:17	1
2,4,6-Tribromophenol	88		25 - 139	05/18/18 07:39	05/18/18 22:17	1
Terphenyl-d14	132		35 - 160	05/18/18 07:39	05/18/18 22:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.24	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Arsenic	3.8		0.63	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Barium	110		0.63	0.071	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Beryllium	0.87		0.25	0.058	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Boron	5.8 B		3.1	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Cadmium	0.19 B		0.13	0.023	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Calcium	3800 B		13	2.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Chromium	22		0.63	0.31	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Cobalt	10		0.31	0.082	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Copper	17		0.63	0.18	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Iron	20000 B		13	6.5	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Lead	11		0.31	0.14	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Magnesium	4900		6.3	3.1	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Manganese	420 B		0.63	0.091	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Nickel	26		0.63	0.18	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Potassium	1500		31	11	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Selenium	<0.63		0.63	0.37	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Silver	0.37		0.31	0.081	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Sodium	460		63	9.3	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Thallium	<0.63		0.63	0.31	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Vanadium	34		0.31	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1
Zinc	42 B		1.3	0.55	mg/Kg	☼	05/11/18 17:09	05/16/18 02:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 02:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 02:01	1
Boron	0.058	J	0.50	0.050	mg/L		05/15/18 15:33	05/17/18 02:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (0-5)

Lab Sample ID: 500-145298-17

Date Collected: 05/10/18 12:48

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 79.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 02:01	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:01	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:01	1
Iron	0.41		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 02:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 02:01	1
Manganese	0.030		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:01	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:01	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 02:01	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:01	1
Zinc	0.11	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 02:01	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:35	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 07:03	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.020	0.0065	mg/Kg	✱	05/22/18 15:55	05/24/18 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/17/18 16:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (5-9)

Lab Sample ID: 500-145298-18

Date Collected: 05/10/18 12:50

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/11/18 07:40	05/17/18 19:25	1
Dibromofluoromethane	91		75 - 126	05/11/18 07:40	05/17/18 19:25	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	05/11/18 07:40	05/17/18 19:25	1
Toluene-d8 (Surr)	111		75 - 124	05/11/18 07:40	05/17/18 19:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (5-9)

Lab Sample ID: 500-145298-18

Date Collected: 05/10/18 12:50

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (5-9)

Lab Sample ID: 500-145298-18

Date Collected: 05/10/18 12:50

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		46 - 133	05/18/18 07:39	05/18/18 22:43	1
Phenol-d5	80		46 - 125	05/18/18 07:39	05/18/18 22:43	1
Nitrobenzene-d5	96		41 - 120	05/18/18 07:39	05/18/18 22:43	1
2-Fluorobiphenyl	94		44 - 121	05/18/18 07:39	05/18/18 22:43	1
2,4,6-Tribromophenol	80		25 - 139	05/18/18 07:39	05/18/18 22:43	1
Terphenyl-d14	127		35 - 160	05/18/18 07:39	05/18/18 22:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Arsenic	3.8		0.57	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Barium	54		0.57	0.065	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Beryllium	0.55		0.23	0.053	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Boron	2.9 B		2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Cadmium	0.19 B		0.11	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Calcium	2200 B		11	1.9	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Chromium	16		0.57	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Cobalt	5.9		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Copper	9.6		0.57	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Iron	15000 B		11	5.9	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Lead	11		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Magnesium	2500		5.7	2.8	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Manganese	230 B		0.57	0.083	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Nickel	14		0.57	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Potassium	830		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Silver	0.23 J		0.29	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Sodium	500		57	8.4	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Thallium	0.36 J		0.57	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Vanadium	30		0.29	0.067	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1
Zinc	30 B		1.1	0.50	mg/Kg	☼	05/11/18 17:09	05/16/18 03:02	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 02:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 02:13	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 02:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B01 (5-9)

Lab Sample ID: 500-145298-18

Date Collected: 05/10/18 12:50

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 83.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/15/18 15:33	05/17/18 02:13	1
Chromium	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:13	1
Cobalt	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:13	1
Iron	0.54		0.40	0.20	mg/L		05/15/18 15:33	05/17/18 02:13	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/15/18 15:33	05/17/18 02:13	1
Manganese	0.15		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:13	1
Nickel	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:13	1
Selenium	<0.050		0.050	0.020	mg/L		05/15/18 15:33	05/17/18 02:13	1
Silver	<0.025		0.025	0.010	mg/L		05/15/18 15:33	05/17/18 02:13	1
Zinc	0.12	J	0.50	0.020	mg/L		05/15/18 15:33	05/17/18 02:13	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L		05/15/18 15:26	05/19/18 04:07	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/15/18 15:33	05/21/18 14:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/15/18 15:33	05/21/18 14:39	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/24/18 02:00	05/24/18 07:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0059	mg/Kg	☼	05/22/18 15:55	05/24/18 12:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/17/18 16:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (0-5)

Lab Sample ID: 500-145298-19

Date Collected: 05/10/18 12:57

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 80.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	05/11/18 07:40	05/17/18 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/11/18 07:40	05/17/18 19:53	1
Dibromofluoromethane	106		75 - 126	05/11/18 07:40	05/17/18 19:53	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	05/11/18 07:40	05/17/18 19:53	1
Toluene-d8 (Surr)	120		75 - 124	05/11/18 07:40	05/17/18 19:53	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (0-5)

Lab Sample ID: 500-145298-19

Date Collected: 05/10/18 12:57

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 80.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Chloroaniline	<0.79		0.79	0.19	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (0-5)

Lab Sample ID: 500-145298-19

Date Collected: 05/10/18 12:57

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 80.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/18/18 07:39	05/18/18 23:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	85		46 - 133	05/18/18 07:39	05/18/18 23:08	1
Phenol-d5	77		46 - 125	05/18/18 07:39	05/18/18 23:08	1
Nitrobenzene-d5	89		41 - 120	05/18/18 07:39	05/18/18 23:08	1
2-Fluorobiphenyl	88		44 - 121	05/18/18 07:39	05/18/18 23:08	1
2,4,6-Tribromophenol	81		25 - 139	05/18/18 07:39	05/18/18 23:08	1
Terphenyl-d14	126		35 - 160	05/18/18 07:39	05/18/18 23:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.22	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Arsenic	3.6		0.58	0.20	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Barium	67		0.58	0.066	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Beryllium	0.59		0.23	0.054	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Boron	3.8 B		2.9	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Cadmium	0.18 B		0.12	0.021	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Calcium	11000 B		12	2.0	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Chromium	18		0.58	0.28	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Cobalt	6.8		0.29	0.075	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Copper	11		0.58	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Iron	16000 B		12	6.0	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Lead	9.6		0.29	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Magnesium	8200		5.8	2.9	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Manganese	290 B		0.58	0.083	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Nickel	16		0.58	0.17	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Potassium	910		29	10	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Selenium	0.43 J		0.58	0.34	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Silver	0.23 J		0.29	0.074	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Sodium	220		58	8.5	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Vanadium	36		0.29	0.068	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1
Zinc	33 B		1.2	0.51	mg/Kg	☼	05/11/18 17:09	05/16/18 03:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.42 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 11:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 11:49	1
Boron	0.059 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 11:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (0-5)

Lab Sample ID: 500-145298-19

Date Collected: 05/10/18 12:57

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 80.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0020	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Iron	0.24	J F1	0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Manganese	0.20		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 11:49	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 11:49	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.58		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 04:19	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 14:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 14:52	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	F1	0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 07:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0063	mg/Kg	☼	05/22/18 15:55	05/24/18 12:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/17/18 16:09	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (5-9)

Lab Sample ID: 500-145298-20

Date Collected: 05/10/18 13:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/11/18 07:40	05/17/18 20:19	1
Dibromofluoromethane	105		75 - 126	05/11/18 07:40	05/17/18 20:19	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/11/18 07:40	05/17/18 20:19	1
Toluene-d8 (Surr)	110		75 - 124	05/11/18 07:40	05/17/18 20:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (5-9)

Lab Sample ID: 500-145298-20

Date Collected: 05/10/18 13:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Methylnaphthalene	<0.074		0.074	0.0067	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (5-9)

Lab Sample ID: 500-145298-20

Date Collected: 05/10/18 13:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Benzo[b]fluoranthene	<0.036		0.036	0.0079	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		46 - 133	05/18/18 07:39	05/18/18 23:33	1
Phenol-d5	83		46 - 125	05/18/18 07:39	05/18/18 23:33	1
Nitrobenzene-d5	94		41 - 120	05/18/18 07:39	05/18/18 23:33	1
2-Fluorobiphenyl	93		44 - 121	05/18/18 07:39	05/18/18 23:33	1
2,4,6-Tribromophenol	72		25 - 139	05/18/18 07:39	05/18/18 23:33	1
Terphenyl-d14	129		35 - 160	05/18/18 07:39	05/18/18 23:33	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Arsenic	1.8		0.55	0.19	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Barium	37		0.55	0.063	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Beryllium	0.45		0.22	0.051	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Boron	8.7 B		2.7	0.26	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Cadmium	0.15 B		0.11	0.020	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Calcium	130000 B		110	19	mg/Kg	☼	05/11/18 17:09	05/16/18 21:17	10
Chromium	12		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Cobalt	5.8		0.27	0.072	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Copper	12		0.55	0.15	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Iron	10000 B		11	5.7	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Lead	4.4		0.27	0.13	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Magnesium	43000		5.5	2.7	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Manganese	230 B		0.55	0.080	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Nickel	14		0.55	0.16	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Potassium	1500		27	9.7	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Silver	0.19 J		0.27	0.071	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Sodium	320		55	8.1	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Vanadium	17		0.27	0.065	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1
Zinc	24 B		1.1	0.48	mg/Kg	☼	05/11/18 17:09	05/16/18 03:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36 J		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 12:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 15:33	05/17/18 12:09	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 15:33	05/17/18 12:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B02 (5-9)

Lab Sample ID: 500-145298-20

Date Collected: 05/10/18 13:00

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 86.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0023	J	0.0050	0.0020	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Cobalt	0.012	J	0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Manganese	2.2		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Nickel	0.028		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 15:33	05/17/18 12:09	1
Zinc	0.020	J B	0.50	0.020	mg/L	-	05/15/18 15:33	05/17/18 12:09	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.30		0.025	0.010	mg/L	-	05/15/18 15:26	05/19/18 04:23	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 15:33	05/21/18 15:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 15:33	05/21/18 15:04	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/24/18 02:00	05/24/18 07:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0087	J	0.018	0.0061	mg/Kg	☼	05/22/18 15:55	05/24/18 12:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.20	0.20	SU	-		05/17/18 16:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B03 (0-6)

Lab Sample ID: 500-145298-21

Date Collected: 05/10/18 13:01

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016		0.014	0.0063	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Benzene	<0.0014		0.0014	0.00037	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Bromoform	<0.0014		0.0014	0.00042	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Carbon disulfide	<0.0036		0.0036	0.00075	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Carbon tetrachloride	<0.0014		0.0014	0.00042	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Chlorobenzene	<0.0014		0.0014	0.00053	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Chloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Chloroform	<0.0014		0.0014	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Chloromethane	<0.0036		0.0036	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00040	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Dibromochloromethane	<0.0014		0.0014	0.00047	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,1-Dichloroethane	<0.0014		0.0014	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,1-Dichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,3-Dichloropropane, Total	<0.0014		0.0014	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Ethylbenzene	<0.0014		0.0014	0.00069	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00042	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Styrene	<0.0014		0.0014	0.00043	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Tetrachloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Toluene	<0.0014		0.0014	0.00036	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00050	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,1,1-Trichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00062	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Trichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Vinyl acetate	<0.0036		0.0036	0.0012	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Vinyl chloride	<0.0014		0.0014	0.00064	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1
Xylenes, Total	<0.0029		0.0029	0.00046	mg/Kg	☼	05/11/18 07:40	05/17/18 20:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/11/18 07:40	05/17/18 20:46	1
Dibromofluoromethane	107		75 - 126	05/11/18 07:40	05/17/18 20:46	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	05/11/18 07:40	05/17/18 20:46	1
Toluene-d8 (Surr)	87		75 - 124	05/11/18 07:40	05/17/18 20:46	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B03 (0-6)

Lab Sample ID: 500-145298-21

Date Collected: 05/10/18 13:01

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Fluoranthene	<0.036		0.036	0.0066	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Pyrene	<0.036		0.036	0.0071	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Benzo[a]anthracene	<0.036		0.036	0.0048	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B03 (0-6)

Lab Sample ID: 500-145298-21

Date Collected: 05/10/18 13:01

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0098	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Benzo[b]fluoranthene	<0.036		0.036	0.0077	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Benzo[a]pyrene	<0.036		0.036	0.0069	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0069	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/18/18 07:39	05/18/18 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		46 - 133	05/18/18 07:39	05/18/18 23:58	1
Phenol-d5	67		46 - 125	05/18/18 07:39	05/18/18 23:58	1
Nitrobenzene-d5	78		41 - 120	05/18/18 07:39	05/18/18 23:58	1
2-Fluorobiphenyl	78		44 - 121	05/18/18 07:39	05/18/18 23:58	1
2,4,6-Tribromophenol	67		25 - 139	05/18/18 07:39	05/18/18 23:58	1
Terphenyl-d14	127		35 - 160	05/18/18 07:39	05/18/18 23:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Arsenic	1.9		0.53	0.18	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Barium	26		0.53	0.060	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Beryllium	0.32		0.21	0.049	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Boron	7.4	B	2.6	0.25	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Cadmium	0.10	J B	0.11	0.019	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Calcium	93000	B	110	18	mg/Kg	☼	05/11/18 17:01	05/16/18 04:41	10
Chromium	8.9		0.53	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Cobalt	4.3		0.26	0.069	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Copper	9.4		0.53	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Iron	8000		11	5.5	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Lead	3.1		0.26	0.12	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Magnesium	40000	B	5.3	2.6	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Manganese	170		0.53	0.077	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Nickel	10		0.53	0.15	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Potassium	1300		26	9.4	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Selenium	<0.53		0.53	0.31	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Silver	0.093	J	0.26	0.068	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Sodium	290		53	7.8	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Vanadium	14		0.26	0.062	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1
Zinc	18		1.1	0.46	mg/Kg	☼	05/11/18 17:01	05/14/18 19:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/15/18 08:40	05/15/18 18:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/15/18 08:40	05/15/18 18:47	1
Boron	<0.50		0.50	0.050	mg/L		05/15/18 08:40	05/15/18 18:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Client Sample ID: 2956V-10-B03 (0-6)

Lab Sample ID: 500-145298-21

Date Collected: 05/10/18 13:01

Matrix: Solid

Date Received: 05/10/18 18:00

Percent Solids: 89.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Cobalt	0.028		0.025	0.010	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Iron	<0.40		0.40	0.20	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Manganese	2.7		0.025	0.010	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Nickel	0.031		0.025	0.010	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Silver	<0.025		0.025	0.010	mg/L	-	05/15/18 08:40	05/15/18 18:47	1
Zinc	0.11	J B	0.50	0.020	mg/L	-	05/15/18 08:40	05/15/18 18:47	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.13		0.025	0.010	mg/L	-	05/15/18 15:28	05/16/18 21:39	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/15/18 08:40	05/21/18 13:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/15/18 08:40	05/21/18 13:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/15/18 16:45	05/15/18 23:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0087	J	0.017	0.0056	mg/Kg	☼	05/22/18 15:55	05/24/18 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.20	0.20	SU	-		05/17/18 16:17	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145298-4

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145298
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter										Preservative Key	
E+E		1009341.0041.02														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		# of Containers		Matrix		Total/TCUP		Metals		PH		Percent Solids		Comments	
176-001-W041A				VOC		SVOC											
Project Location/State		Lab Project #		Date		Time											
Marengo, IL				5/10/18		1248											
Sampler		Lab PM		Sample ID		MS/MSD											
MF, JH		D. Wright		2956V													
17				2273V-10-B01(0-5)	5/10/18	1248	5	S	X	X	X	X	X	X			Note: All these borings should have the prefix 2956V not 1273V. Samples have incorrect prefix. Jeff Hughes 219-730-6094
18				2273V-10-B01(5-9)	5/10/18	1250	5	S	X	X	X	X	X				
19				2273V-10-B02(0-5)	5/10/18	1257	5	S	X	X	X	X	X				
20				2273V-10-B02(5-9)	5/10/18	1300	5	S	X	X	X	X	X				
21				2273V-10-B03(0-6)	5/10/18	1301	5	S	X	X	X	X	X				

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <i>J. Hughes</i>	Company E+E	Date 5/10/18	Time 1530	Received By <i>P. Neal</i>	Company TA	Date 5/10/18	Time 1530	Lab Courier TA
Relinquished By <i>P. Neal</i>	Company TA	Date 5/10/18	Time 1800	Received By <i>Shirley</i>	Company TA-CRT	Date 5/11/18	Time 0715	Shipped _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Hand Delivered _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145298-4

Login Number: 145298

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145367-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:19:48 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Job ID: 500-145367-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145367-2

Receipt

The samples were received on 5/11/2018 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B03 (0-4) (500-145367-7), 2273V-02-B02 (0-4) (500-145367-8) and (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Two acid surrogate recoveries for the following sample were outside the upper control limit: 2273V-02-B01 (0-4) (500-145367-9). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Selenium above the reporting limit (RL). The sample 2273V-02-B05 (0-6) (500-145367-4), 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B04 (0-6) (500-145367-6), 2273V-02-B03 (0-4) (500-145367-7), 2273V-02-B02 (0-4) (500-145367-8) and 2273V-02-B01 (0-4) (500-145367-9) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

Method(s) 6010B: The method blank for preparation batch 500-432824 and analytical batch 500-433000 contained Zinc above the reporting limit (RL). Associated samples 2273V-02-B05 (0-6) (500-145367-4), 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B04 (0-6) (500-145367-6), 2273V-02-B03 (0-4) (500-145367-7) and 2273V-02-B02 (0-4) (500-145367-8) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[a]anthracene	0.0049	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.35	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.1		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.20	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J B	2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000	B	51	8.7	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.4		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.3		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	5.6	B	0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	9100		10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	4.8		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	180	B	0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.6		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	440		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Silver	0.074	J	0.26	0.066	mg/Kg	1	☼	6010B	Total/NA
Sodium	110		51	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.26	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	17	B	1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.093		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.013	J	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	19		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	2.3	J B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000	B	50	8.5	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.2		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.5		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	5.8	B	0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	8800		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	3.7		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	160	B	0.50	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.5		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	380		25	8.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	120		50	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	15	B	1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D (Continued)

Lab Sample ID: 500-145367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.012	J	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B04 (0-6)

Lab Sample ID: 500-145367-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.014	J	0.015	0.0067	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.26	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.5		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	64		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.3	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000	B	54	9.2	mg/Kg	5	☼	6010B	Total/NA
Chromium	13		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.9		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	10	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	6.7		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	520	B	0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	780		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	22	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.014	J	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B03 (0-4)

Lab Sample ID: 500-145367-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011	J	0.022	0.0097	mg/Kg	1	☼	8260B	Total/NA
Arsenic	4.6		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	78		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	1.4	J B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	1700	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1900		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B03 (0-4) (Continued)

Lab Sample ID: 500-145367-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	14		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	580		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	350		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	39		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	34	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.21	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.044		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.087	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.042		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B02 (0-4)

Lab Sample ID: 500-145367-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.019	0.0085	mg/Kg	1	☼	8260B	Total/NA
Arsenic	4.5		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	1.9	J B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	1600	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.6		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	10	B	0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2300		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	370	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	710		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J B	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	340		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	30		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	32	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.42		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.018	J	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B01 (0-4)

Lab Sample ID: 500-145367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0087	J	0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.29	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.8		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B01 (0-4) (Continued)

Lab Sample ID: 500-145367-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	47		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.43		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	2.2	J B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	3600	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.6		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	8.7	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2900		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	320	B	0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.7		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.35	J B	0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.16	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	93		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	28	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.083		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.00033		0.00020	0.00020	mg/L	1		7470A	TCLP
Mercury	0.051		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145367-4	2273V-02-B05 (0-6)	Solid	05/11/18 10:25	05/11/18 14:00
500-145367-5	2273V-02-B05 (0-6)D	Solid	05/11/18 10:25	05/11/18 14:00
500-145367-6	2273V-02-B04 (0-6)	Solid	05/11/18 10:33	05/11/18 14:00
500-145367-7	2273V-02-B03 (0-4)	Solid	05/11/18 11:16	05/11/18 14:00
500-145367-8	2273V-02-B02 (0-4)	Solid	05/11/18 11:20	05/11/18 14:00
500-145367-9	2273V-02-B01 (0-4)	Solid	05/11/18 11:30	05/11/18 14:00



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0097	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Benzene	<0.0022		0.0022	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromoform	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromomethane	<0.0056		0.0056	0.0021	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
2-Butanone (MEK)	<0.0056		0.0056	0.0025	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Carbon disulfide	<0.0056		0.0056	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chlorobenzene	<0.0022		0.0022	0.00082	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloroethane	<0.0056		0.0056	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloroform	<0.0022		0.0022	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloromethane	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00062	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Dibromochloromethane	<0.0022		0.0022	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1-Dichloroethane	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloroethane	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1-Dichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,3-Dichloropropene, Total	<0.0022		0.0022	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
2-Hexanone	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Methylene Chloride	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Styrene	<0.0022		0.0022	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Tetrachloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00098	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00095	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Trichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Vinyl acetate	<0.0056		0.0056	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Vinyl chloride	<0.0022		0.0022	0.00098	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Xylenes, Total	<0.0044		0.0044	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/11/18 17:49	05/19/18 20:09	1
Dibromofluoromethane	85		75 - 126	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/11/18 17:49	05/19/18 20:09	1
Toluene-d8 (Surr)	92		75 - 124	05/11/18 17:49	05/19/18 20:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[a]anthracene	0.0049	J	0.035	0.0047	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0096	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	128		46 - 133	05/21/18 07:31	05/22/18 13:59	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 13:59	1
Nitrobenzene-d5	88		41 - 120	05/21/18 07:31	05/22/18 13:59	1
2-Fluorobiphenyl	95		44 - 121	05/21/18 07:31	05/22/18 13:59	1
2,4,6-Tribromophenol	117		25 - 139	05/21/18 07:31	05/22/18 13:59	1
Terphenyl-d14	104		35 - 160	05/21/18 07:31	05/22/18 13:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	J	1.0	0.20	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Arsenic	2.1		0.51	0.18	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Barium	28		0.51	0.058	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Beryllium	0.32		0.20	0.048	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Boron	2.4	J B	2.6	0.24	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Cadmium	0.14	B	0.10	0.018	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Calcium	48000	B	51	8.7	mg/Kg	☼	05/17/18 16:19	05/19/18 02:59	5
Chromium	9.4		0.51	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Cobalt	3.3		0.26	0.067	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Copper	5.6	B	0.51	0.14	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Iron	9100		10	5.3	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Lead	4.8		0.26	0.12	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Magnesium	22000		5.1	2.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Manganese	180	B	0.51	0.074	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Nickel	7.6		0.51	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Potassium	440		26	9.1	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Selenium	<0.51		0.51	0.30	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Silver	0.074	J	0.26	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Sodium	110		51	7.6	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Thallium	<0.51		0.51	0.26	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Vanadium	20		0.26	0.060	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Zinc	17	B	1.0	0.45	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:53	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 14:53	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Iron	<0.40		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 14:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 14:53	1
Manganese	0.093		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 14:53	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Zinc	<0.50		0.50	0.020	mg/L		05/18/18 14:23	05/21/18 14:53	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/23/18 23:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.017	0.0056	mg/Kg	✱	05/23/18 09:12	05/24/18 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/18/18 16:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/11/18 17:49	05/19/18 20:36	1
Dibromofluoromethane	87		75 - 126	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/11/18 17:49	05/19/18 20:36	1
Toluene-d8 (Surr)	89		75 - 124	05/11/18 17:49	05/19/18 20:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dimethylphenol	<0.35		0.35	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dichlorophenol	<0.35		0.35	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Phenanthrene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Anthracene	<0.035		0.035	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Fluoranthene	<0.035		0.035	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Pyrene	<0.035		0.035	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[b]fluoranthene	<0.035		0.035	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[a]pyrene	<0.035		0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	145	X	46 - 133	05/21/18 07:31	05/22/18 14:26	1
Phenol-d5	87		46 - 125	05/21/18 07:31	05/22/18 14:26	1
Nitrobenzene-d5	64		41 - 120	05/21/18 07:31	05/22/18 14:26	1
2-Fluorobiphenyl	82		44 - 121	05/21/18 07:31	05/22/18 14:26	1
2,4,6-Tribromophenol	104		25 - 139	05/21/18 07:31	05/22/18 14:26	1
Terphenyl-d14	106		35 - 160	05/21/18 07:31	05/22/18 14:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Arsenic	2.3		0.50	0.17	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Barium	19		0.50	0.057	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Beryllium	0.32		0.20	0.047	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Boron	2.3	J B	2.5	0.23	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Cadmium	0.12	B	0.10	0.018	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Calcium	48000	B	50	8.5	mg/Kg	☼	05/17/18 16:19	05/19/18 03:03	5
Chromium	8.2		0.50	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Cobalt	3.5		0.25	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Copper	5.8	B	0.50	0.14	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Iron	8800		10	5.2	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Lead	3.7		0.25	0.12	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Magnesium	24000		5.0	2.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Manganese	160	B	0.50	0.073	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Nickel	7.5		0.50	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Potassium	380		25	8.9	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Selenium	<0.50		0.50	0.30	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Sodium	120		50	7.4	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Vanadium	20		0.25	0.059	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Zinc	15	B	1.0	0.44	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:58	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 14:58	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Iron	<0.40		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 14:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 14:58	1
Manganese	0.43		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 14:58	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Zinc	<0.50		0.50	0.020	mg/L		05/18/18 14:23	05/21/18 14:58	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.28		0.025	0.010	mg/L		05/18/18 14:25	05/21/18 19:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/24/18 00:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0056	mg/Kg	☼	05/23/18 09:12	05/24/18 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/18/18 16:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B04 (0-6)

Lab Sample ID: 500-145367-6

Date Collected: 05/11/18 10:33

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.014	J	0.015	0.0067	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Carbon disulfide	<0.0038		0.0038	0.00080	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Ethylbenzene	<0.0015		0.0015	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Vinyl acetate	<0.0038		0.0038	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1
Xylenes, Total	<0.0031		0.0031	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/11/18 17:49	05/19/18 21:02	1
Dibromofluoromethane	86		75 - 126	05/11/18 17:49	05/19/18 21:02	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/11/18 17:49	05/19/18 21:02	1
Toluene-d8 (Surr)	90		75 - 124	05/11/18 17:49	05/19/18 21:02	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B04 (0-6)

Lab Sample ID: 500-145367-6

Date Collected: 05/11/18 10:33

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Phenanthrene	<0.037		0.037	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Benzof[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B04 (0-6)

Lab Sample ID: 500-145367-6

Date Collected: 05/11/18 10:33

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	108		46 - 133	05/21/18 07:31	05/22/18 14:53	1
Phenol-d5	90		46 - 125	05/21/18 07:31	05/22/18 14:53	1
Nitrobenzene-d5	80		41 - 120	05/21/18 07:31	05/22/18 14:53	1
2-Fluorobiphenyl	81		44 - 121	05/21/18 07:31	05/22/18 14:53	1
2,4,6-Tribromophenol	105		25 - 139	05/21/18 07:31	05/22/18 14:53	1
Terphenyl-d14	100		35 - 160	05/21/18 07:31	05/22/18 14:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.1	0.21	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Arsenic	3.5		0.54	0.19	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Barium	64		0.54	0.062	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Beryllium	0.50		0.22	0.051	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Boron	4.3	B	2.7	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Cadmium	0.18	B	0.11	0.020	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Calcium	66000	B	54	9.2	mg/Kg	☼	05/17/18 16:19	05/19/18 03:07	5
Chromium	13		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Cobalt	8.9		0.27	0.071	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Copper	10	B	0.54	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Iron	13000		11	5.7	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Lead	6.7		0.27	0.13	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Magnesium	27000		5.4	2.7	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Manganese	520	B	0.54	0.079	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Nickel	14		0.54	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Potassium	780		27	9.6	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Silver	0.15	J	0.27	0.070	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Sodium	170		54	8.0	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Vanadium	26		0.27	0.064	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1
Zinc	22	B	1.1	0.48	mg/Kg	☼	05/17/18 16:19	05/18/18 13:02	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 15:01	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B04 (0-6)

Lab Sample ID: 500-145367-6

Date Collected: 05/11/18 10:33

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 15:01	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:01	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:01	1
Iron	<0.40		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 15:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 15:01	1
Manganese	0.037		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:01	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:01	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 15:01	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:01	1
Zinc	0.11	J B	0.50	0.020	mg/L		05/18/18 14:23	05/21/18 15:01	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:54	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/24/18 00:03	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.017	0.0057	mg/Kg	☼	05/23/18 09:12	05/24/18 12:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/18/18 16:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B03 (0-4)

Lab Sample ID: 500-145367-7

Date Collected: 05/11/18 11:16

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 81.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011	J	0.022	0.0097	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Benzene	<0.0022		0.0022	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Bromodichloromethane	<0.0022		0.0022	0.00046	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Bromoform	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Bromomethane	<0.0056		0.0056	0.0021	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
2-Butanone (MEK)	<0.0056		0.0056	0.0025	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Carbon disulfide	<0.0056		0.0056	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Carbon tetrachloride	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Chlorobenzene	<0.0022		0.0022	0.00083	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Chloroethane	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Chloroform	<0.0022		0.0022	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Chloromethane	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00063	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Dibromochloromethane	<0.0022		0.0022	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,1-Dichloroethane	<0.0022		0.0022	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,2-Dichloroethane	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,1-Dichloroethene	<0.0022		0.0022	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,2-Dichloropropane	<0.0022		0.0022	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00079	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
2-Hexanone	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Methylene Chloride	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00066	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Styrene	<0.0022		0.0022	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,1,1,2-Tetrachloroethane	<0.0022		0.0022	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Tetrachloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00099	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00079	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00096	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Trichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Vinyl acetate	<0.0056		0.0056	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Vinyl chloride	<0.0022		0.0022	0.00099	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1
Xylenes, Total	<0.0045		0.0045	0.00072	mg/Kg	☼	05/11/18 17:49	05/19/18 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/11/18 17:49	05/19/18 14:10	1
Dibromofluoromethane	113		75 - 126	05/11/18 17:49	05/19/18 14:10	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	05/11/18 17:49	05/19/18 14:10	1
Toluene-d8 (Surr)	110		75 - 124	05/11/18 17:49	05/19/18 14:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B03 (0-4)

Lab Sample ID: 500-145367-7

Date Collected: 05/11/18 11:16

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 81.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B03 (0-4)

Lab Sample ID: 500-145367-7

Date Collected: 05/11/18 11:16

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 81.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	133		46 - 133	05/21/18 07:31	05/22/18 15:20	1
Phenol-d5	119		46 - 125	05/21/18 07:31	05/22/18 15:20	1
Nitrobenzene-d5	82		41 - 120	05/21/18 07:31	05/22/18 15:20	1
2-Fluorobiphenyl	65		44 - 121	05/21/18 07:31	05/22/18 15:20	1
2,4,6-Tribromophenol	111		25 - 139	05/21/18 07:31	05/22/18 15:20	1
Terphenyl-d14	106		35 - 160	05/21/18 07:31	05/22/18 15:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Arsenic	4.6		0.56	0.19	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Barium	78		0.56	0.064	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Beryllium	0.65		0.22	0.052	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Boron	1.4	J B	2.8	0.26	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Cadmium	0.18	B	0.11	0.020	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Calcium	1700	B	11	1.9	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Chromium	18		0.56	0.28	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Cobalt	8.4		0.28	0.073	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Copper	11	B	0.56	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Iron	18000		11	5.8	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Lead	11		0.28	0.13	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Magnesium	1900		5.6	2.8	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Manganese	290	B	0.56	0.081	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Nickel	14		0.56	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Potassium	580		28	9.9	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Silver	0.19	J	0.28	0.072	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Sodium	350		56	8.3	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Vanadium	39		0.28	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1
Zinc	34	B	1.1	0.49	mg/Kg	☼	05/17/18 16:19	05/18/18 13:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 15:06	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B03 (0-4)

Lab Sample ID: 500-145367-7

Date Collected: 05/11/18 11:16

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 81.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 15:06	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:06	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:06	1
Iron	0.21	J	0.40	0.20	mg/L		05/18/18 14:23	05/21/18 15:06	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 15:06	1
Manganese	0.044		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:06	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:06	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 15:06	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:06	1
Zinc	0.087	J B	0.50	0.020	mg/L		05/18/18 14:23	05/21/18 15:06	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/24/18 00:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.018	0.0061	mg/Kg	☆	05/23/18 09:12	05/24/18 12:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU			05/18/18 16:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B02 (0-4)

Lab Sample ID: 500-145367-8

Date Collected: 05/11/18 11:20

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 83.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016	J	0.019	0.0085	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Benzene	<0.0019		0.0019	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Bromodichloromethane	<0.0019		0.0019	0.00040	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Carbon tetrachloride	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Chloroethane	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Chloroform	<0.0019		0.0019	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Dibromochloromethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,1-Dichloroethane	<0.0019		0.0019	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00084	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/11/18 17:49	05/19/18 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/11/18 17:49	05/19/18 14:37	1
Dibromofluoromethane	120		75 - 126	05/11/18 17:49	05/19/18 14:37	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 134	05/11/18 17:49	05/19/18 14:37	1
Toluene-d8 (Surr)	97		75 - 124	05/11/18 17:49	05/19/18 14:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B02 (0-4)

Lab Sample ID: 500-145367-8

Date Collected: 05/11/18 11:20

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 83.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Methylnaphthalene	<0.081		0.081	0.0073	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B02 (0-4)

Lab Sample ID: 500-145367-8

Date Collected: 05/11/18 11:20

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 83.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	113		46 - 133	05/21/18 07:31	05/22/18 15:47	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 15:47	1
Nitrobenzene-d5	82		41 - 120	05/21/18 07:31	05/22/18 15:47	1
2-Fluorobiphenyl	122	X	44 - 121	05/21/18 07:31	05/22/18 15:47	1
2,4,6-Tribromophenol	128		25 - 139	05/21/18 07:31	05/22/18 15:47	1
Terphenyl-d14	102		35 - 160	05/21/18 07:31	05/22/18 15:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.22	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Arsenic	4.5		0.58	0.20	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Barium	72		0.58	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Beryllium	0.64		0.23	0.054	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Boron	1.9	J B	2.9	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Cadmium	0.13	B	0.12	0.021	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Calcium	1600	B	12	2.0	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Chromium	15		0.58	0.29	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Cobalt	9.6		0.29	0.076	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Copper	10	B	0.58	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Iron	15000		12	6.0	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Lead	10		0.29	0.13	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Magnesium	2300		5.8	2.9	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Manganese	370	B	0.58	0.084	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Nickel	14		0.58	0.17	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Potassium	710		29	10	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Selenium	0.53	J B	0.58	0.34	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Silver	0.21	J	0.29	0.075	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Sodium	340		58	8.6	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Vanadium	30		0.29	0.068	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1
Zinc	32	B	1.2	0.51	mg/Kg	☼	05/17/18 16:19	05/18/18 13:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:10	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 15:10	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B02 (0-4)

Lab Sample ID: 500-145367-8

Date Collected: 05/11/18 11:20

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 83.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 15:10	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:10	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:10	1
Iron	0.42		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 15:10	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 15:10	1
Manganese	0.018	J	0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:10	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:10	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 15:10	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 15:10	1
Zinc	0.11	J B	0.50	0.020	mg/L		05/18/18 14:23	05/21/18 15:10	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 16:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 16:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/24/18 00:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.019	0.0062	mg/Kg	☼	05/23/18 09:12	05/24/18 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/18/18 16:38	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B01 (0-4)

Lab Sample ID: 500-145367-9

Date Collected: 05/11/18 11:30

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0087	J	0.016	0.0071	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Carbon disulfide	<0.0041		0.0041	0.00084	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	05/11/18 17:49	05/19/18 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		75 - 131	05/11/18 17:49	05/19/18 15:04	1
Dibromofluoromethane	98		75 - 126	05/11/18 17:49	05/19/18 15:04	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	05/11/18 17:49	05/19/18 15:04	1
Toluene-d8 (Surr)	110		75 - 124	05/11/18 17:49	05/19/18 15:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B01 (0-4)

Lab Sample ID: 500-145367-9

Date Collected: 05/11/18 11:30

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Methylnaphthalene	<0.073		0.073	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Fluoranthene	<0.036		0.036	0.0067	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B01 (0-4)

Lab Sample ID: 500-145367-9

Date Collected: 05/11/18 11:30

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0098	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Benzo[b]fluoranthene	<0.036		0.036	0.0078	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	207	X	46 - 133	05/21/18 07:31	05/22/18 16:13	1
Phenol-d5	133	X	46 - 125	05/21/18 07:31	05/22/18 16:13	1
Nitrobenzene-d5	119		41 - 120	05/21/18 07:31	05/22/18 16:13	1
2-Fluorobiphenyl	62		44 - 121	05/21/18 07:31	05/22/18 16:13	1
2,4,6-Tribromophenol	96		25 - 139	05/21/18 07:31	05/22/18 16:13	1
Terphenyl-d14	102		35 - 160	05/21/18 07:31	05/22/18 16:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.29	J	1.1	0.21	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Arsenic	2.8		0.54	0.19	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Barium	47		0.54	0.062	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Beryllium	0.43		0.22	0.051	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Boron	2.2	J B	2.7	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Calcium	3600	B	11	1.8	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Chromium	11		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Cobalt	5.6		0.27	0.071	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Copper	8.7	B	0.54	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Iron	10000		11	5.6	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Lead	23		0.27	0.13	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Magnesium	2900		5.4	2.7	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Manganese	320	B	0.54	0.079	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Nickel	9.7		0.54	0.16	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Potassium	660		27	9.6	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Selenium	0.35	J B	0.54	0.32	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Silver	0.16	J	0.27	0.070	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Sodium	93		54	8.0	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Vanadium	22		0.27	0.064	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1
Zinc	28	B	1.1	0.48	mg/Kg	☼	05/17/18 16:19	05/18/18 13:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 15:22	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 15:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B01 (0-4)

Lab Sample ID: 500-145367-9

Date Collected: 05/11/18 11:30

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 87.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0023	J	0.0050	0.0020	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Iron	<0.40		0.40	0.20	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Manganese	0.083		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Silver	<0.025		0.025	0.010	mg/L	-	05/18/18 14:23	05/21/18 15:22	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/18/18 14:23	05/21/18 15:22	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/18/18 14:23	05/21/18 16:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/18/18 14:23	05/21/18 16:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00033		0.00020	0.00020	mg/L	-	05/21/18 14:15	05/24/18 00:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051		0.018	0.0059	mg/Kg	✱	05/23/18 09:12	05/24/18 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU	-		05/18/18 16:41	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)	Bill To _____ (optional)
Contact: _____	Contact: _____
Company: _____	Company: _____
Address: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
E-Mail: _____	PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145367

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 3.7

Client		Client Project #		Preservative		Parameter												Preservative Key	
E+E		1069341.0041.02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
176-001-W041A																			
Project Location/State		Lab PM																	
Marengo, IL		R. Wright																	
Sampler																			
MF, JH																			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/TCAP Metals	pH	Percent Solids						Comments		
4		2273V-02-B05(0-6)	5/11/18	1025	5	S	X	X	X	X	X								
5		2273V-02-B05(0-6)D	5/11/18	1025	5	S	X	X	X	X	X								
6		2273V-02-B04(0-6)	5/11/18	1033	5	S	X	X	X	X	X								
7		2273V-02-B03(0-4)	5/11/18	1116	5	S	X	X	X	X	X								
8		2273V-02-B02(0-4)	5/11/18	1120	5	S	X	X	X	X	X								
9		2273V-02-B01(0-4)	5/11/18	1130	5	S	X	X	X	X	X								

Turnaround Time Required (Business Days):
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Sample Disposal:
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Requested Due Date: _____

Relinquished By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>5/11/18</u> Time: <u>1:30</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/11/18</u> Time: <u>1:30</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5-11-18</u> Time: <u>1400</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHE</u> Date: <u>5/11/18</u> Time: <u>1400</u>	Shipped: _____
Relinquished By: _____	Received By: _____	Hand Delivered: _____

Matrix Key WW - Wastewater SE - Sediment W - Water SO - Soil S - Soil L - Leachate SL - Sludge WI - Wipe MS - Miscellaneous DW - Drinking Water OL - Oil O - Other A - Air	Client Comments:	Lab Comments:
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Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145367-2

Login Number: 145367

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

18210 Beck Road (ISGS #3696-34)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20558 Longitude: -88.55277
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: 1110655051 BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-09-B02 through 2273V-09-B10 and 2273V-09-B12 were sampled within the construction zone adjacent to ISGS #3696-34 (2273V-9/2956V-11) Roland Machinery Co.. Refer to PSI Report for ISGS #3696-34 (2273V-9/2956V-11) Roland Machinery Co. including Table 4-4, and Figures 4-2 and 4-3.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages J144861-4 and J145111-2.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

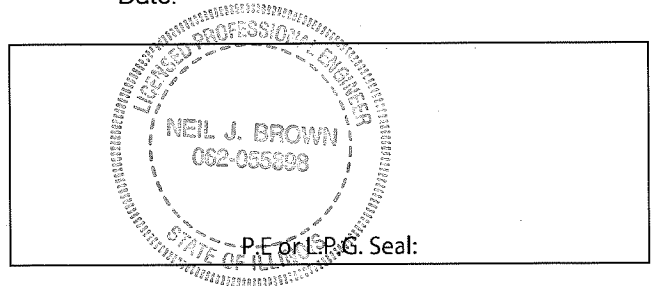
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name: _____

Neil J. Brown
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.


L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN

SITE	ISGS #3696-34 (Roland Machinery Co.)					Comparison Criteria					
	2273V-09-B02	2273V-09-B03	2273V-09-B04	2273V-09-B05	2273V-09-B06	MACs			TACO		
BORING											
SAMPLE	2273V-09-B02 (0-3)	2273V-09-B03 (0-3)	2273V-09-B04 (0-3)	2273V-09-B05 (0-3)	2273V-09-B06 (0-3)						
MATRIX	Soil	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-3	0-3	0-3	0-3	0-3						
pH	7.9	7.2	7.6	8.3	7.9						
PID	--	--	--	--	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
VOCs (None Detected)											
SVOCs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(a)anthracene	ND U	ND U	ND U	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(b)fluoranthene	ND U	ND U	ND U	0.0083 J	ND U	0.9	2.1	1.5	2.1	170	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	46	4,100	--
Fluoranthene	ND U	ND U	ND U	0.0082 J	ND U	3,100	--	--	3,100	82,000	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Pyrene	ND U	ND U	ND U	0.0077 J	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)											
Arsenic	2.6	2.8	3.9	2.6	6.6	11.3	13	--	13	61	--
Barium	40	76	77	27	41	1,500	--	--	5,500	14,000	--
Beryllium	0.37	0.44	0.51	0.4	0.46	22	--	--	160	410	--
Boron	ND U	3.1	ND U	ND U	3.2	40	--	--	16,000	41,000	--
Calcium	6,400	2,600	1,500	1,400	8,100	--	--	--	--	--	--
Chromium	11	14	16	11	16	21	--	--	230	690	--
Cobalt	4.3	5.7	9.3	3.1	6.5	20	--	--	4,700	12,000	--
Copper	5.9	11	11	5.2	10	2,900	--	--	2,900	8,200	--
Iron	10,000	13,000	15,000	10,000	21,000 †m	15,000	15,900	--	--	--	--
Lead	8.5	19	9.9	6.4	8.7	107	--	--	400	700	--
Magnesium	4,400	1,800	2,500	1,600	6,100	325,000	--	--	--	730,000	--
Manganese	210	420	480	79	190	630	636	--	1,600	4,100	--
Mercury	0.016 J	0.022	0.018	0.026	0.024	0.89	--	--	10	0.1	--
Nickel	8.6	9.9	12	6.7	14	100	--	--	1,600	4,100	--
Potassium	660	1,100	810	460	840	--	--	--	--	--	--
Selenium	ND U	0.32 J	ND U	ND U	ND U	1.3	--	--	390	1,000	--
Silver	0.21 J	0.18 J	0.23 J	0.16 J	0.3	4.4	--	--	390	1,000	--
Sodium	380	450	790	330	480	--	--	--	--	--	--
Thallium	ND U	ND U	ND U	ND U	ND U	2.6	--	--	6.3	160	--
Vanadium	27	27	34	25	40	550	--	--	550	1,400	--
Zinc	24	43	34	20	27	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)											
Barium	0.28 J	0.17 J	0.2 J	0.18 J	0.31 J	--	--	--	--	--	2
Boron	ND U	0.058 J	ND U	ND U	ND U	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.005
Iron	0.3 J	2.2	0.66	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.14	0.052	0.023 J	0.05	0.34 L	--	--	--	--	--	0.15
Zinc	ND U	0.031 J	ND U	ND U	ND U	--	--	--	--	--	5
SPLP Metals (mg/L)											
Lead	NA	NA	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	NA	NA	NA	NA	0.3 L	--	--	--	--	--	0.15

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN

SITE	ISGS #3696-34 (Roland Machinery Co.)					Comparison Criteria					
	2273V-09-B07	2273V-09-B08	2273V-09-B09	2273V-09-B10	2273V-09-B12	MACs			TACO		
SAMPLE	2273V-09-B07 (0-3)	2273V-09-B08 (0-4)	2273V-09-B09 (0-3)	2273V-09-B10 (0-3)	2273V-09-B12 (0-6)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-3	0-4	0-3	0-3	0-6						
pH	8.5	8.2	7.9	7.3	7.7						
PID	--	--	--	--	--						
VOCs (None Detected)											
SVOcs (mg/kg)											
2-Methylnaphthalene	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(a)anthracene	ND U	ND U	ND U	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(b)fluoranthene	ND U	ND U	ND U	ND U	ND U	0.9	2.1	1.5	2.1	170	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	0.12 J	46	--	--	46	4,100	--
Fluoranthene	ND U	ND U	ND U	ND U	ND U	3,100	--	--	3,100	82,000	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Pyrene	ND U	ND U	ND U	ND U	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)											
Arsenic	2.9	4.2	2.7	3	2.4	11.3	13	--	13	61	--
Barium	22	65	46	38	79	1,500	--	--	5,500	14,000	--
Beryllium	0.23	0.6	0.41	0.39	0.54	22	--	--	160	410	--
Boron	4.2	4.4	2.2 J	2.9	2.8	40	--	--	16,000	41,000	--
Calcium	56,000	6,300	3,700	12,000	9,100	--	--	--	--	--	--
Chromium	8.6	18	13	12	19	21	--	--	230	690	--
Cobalt	3.2	5.8	5	4.7	4.4	20	--	--	4,700	12,000	--
Copper	5.2	17	6.7	6.7	11	2,900	--	--	2,900	8,200	--
Iron	8,700	20,000 †m	12,000	10,000	14,000	15,000	15,900	--	--	--	--
Lead	4	17	6.5	7.8	15	107	--	--	400	700	--
Magnesium	30,000	4,000	2,800	7,900	6,100	325,000	--	--	--	730,000	--
Manganese	200	130	330	230	190	630	636	--	1,600	4,100	--
Mercury	0.0068 J	0.045	0.017 J	0.015 J	0.025	0.89	--	--	10	0.1	--
Nickel	7	15	12	11	12	100	--	--	1,600	4,100	--
Potassium	550	880	700	740	740	--	--	--	--	--	--
Selenium	ND U	0.58	0.39 J	ND U	0.45 J	1.3	--	--	390	1,000	--
Silver	0.075 J	0.28 J	0.21 J	0.18 J	0.22 J	4.4	--	--	390	1,000	--
Sodium	270	990	230	140	320	--	--	--	--	--	--
Thallium	ND U	0.44 J	ND U	ND U	ND U	2.6	--	--	6.3	160	--
Vanadium	17	36	29	24	40	550	--	--	550	1,400	--
Zinc	14	51	24	30	52	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)											
Barium	0.23 J	0.17 J	0.36 J	0.32 J	0.5	--	--	--	--	--	2
Boron	0.053 J	0.083 J	ND U	ND U	ND U	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.005
Iron	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.5 L	0.21 L	0.14	0.61 L	0.2 L	--	--	--	--	--	0.15
Zinc	ND U	ND U	0.038 J	ND UJ	0.053 J	--	--	--	--	--	5
SPLP Metals (mg/L)											
Lead	NA	NA	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	0.18 L	0.43 L	NA	0.69 L	0.34 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-4
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
5/17/2018 5:20:55 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Job ID: 500-144861-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144861-4

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

Receipt Exceptions

The bottles for laboratory samples 16 thru 19 have the date 05/03/18 on the labels. The Chain of Custody has 05/02/18. The samples were logged in per bottle labels.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following samples was outside the upper control limit: 2273V-09-B09 (0-3) (500-144861-16). This sample did not contain any target analytes; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base and / or acid surrogate outside acceptance limits: 2273V-09-B09 (0-3) (500-144861-16), 2273V-09-B11 (0-6) (500-144861-18), 2273V-09-B12 (0-6) (500-144861-19), (500-144861-E-2-F MS) and (500-144861-E-2-G MSD). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-431902 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 2273V-09-B09 (0-3) (500-144861-16), 2273V-09-B10 (0-3) (500-144861-17), 2273V-09-B11 (0-6) (500-144861-18) and 2273V-09-B12 (0-6) (500-144861-19).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B09 (0-3)

Lab Sample ID: 500-144861-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	46	B	0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	2.2	J	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	3700	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	6.7	B	0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	6.5		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2800		5.5	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	700		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.39	J	0.55	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	29		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	24	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.038	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.017	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B10 (0-3)

Lab Sample ID: 500-144861-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	38	B	0.52	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	2.9		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	12000	B	10	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.7		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	6.7	B	0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	7.8		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7900		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	230		0.52	0.075	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	740		26	9.2	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Sodium	140		52	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	30	B	1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.61		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B10 (0-3) (Continued)

Lab Sample ID: 500-144861-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.69		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.018	0.0060	mg/Kg	1	*	7471B	Total/NA
pH	7.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B12 (0-6)

Lab Sample ID: 500-144861-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.12	J	0.19	0.071	mg/Kg	1	*	8270D	Total/NA
Arsenic	2.4		0.56	0.19	mg/Kg	1	*	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B12 (0-6) (Continued)

Lab Sample ID: 500-144861-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	79	B	0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	2.8		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	9100	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.4		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6100		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	740		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.22	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	320		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	40		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.053	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-16	2273V-09-B09 (0-3)	Solid	05/03/18 11:45	05/03/18 17:40
500-144861-17	2273V-09-B10 (0-3)	Solid	05/03/18 11:55	05/03/18 17:40
500-144861-19	2273V-09-B12 (0-6)	Solid	05/03/18 12:20	05/03/18 17:40

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B09 (0-3)

Lab Sample ID: 500-144861-16

Date Collected: 05/03/18 11:45

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0091	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
2-Butanone (MEK)	<0.0053		0.0053	0.0023	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Chlorobenzene	<0.0021		0.0021	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Chloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Chloroform	<0.0021		0.0021	0.00073	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,2-Dichloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,2-Dichloropropane	<0.0021		0.0021	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
2-Hexanone	<0.0053		0.0053	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Tetrachloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Vinyl acetate	<0.0053		0.0053	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Vinyl chloride	<0.0021		0.0021	0.00093	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/04/18 18:15	05/14/18 19:25	1
Dibromofluoromethane	107		75 - 126	05/04/18 18:15	05/14/18 19:25	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	05/04/18 18:15	05/14/18 19:25	1
Toluene-d8 (Surr)	127	X	75 - 124	05/04/18 18:15	05/14/18 19:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B09 (0-3)

Lab Sample ID: 500-144861-16

Date Collected: 05/03/18 11:45

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 84.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B09 (0-3)

Lab Sample ID: 500-144861-16

Date Collected: 05/03/18 11:45

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 84.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 05:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/10/18 07:05	05/11/18 05:36	1
Phenol-d5	121		46 - 125	05/10/18 07:05	05/11/18 05:36	1
Nitrobenzene-d5	108		41 - 120	05/10/18 07:05	05/11/18 05:36	1
2-Fluorobiphenyl	122	X	44 - 121	05/10/18 07:05	05/11/18 05:36	1
2,4,6-Tribromophenol	73		25 - 139	05/10/18 07:05	05/11/18 05:36	1
Terphenyl-d14	131		35 - 160	05/10/18 07:05	05/11/18 05:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Arsenic	2.7		0.55	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Barium	46	B	0.55	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Beryllium	0.41		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Boron	2.2	J	2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Cadmium	0.14	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Calcium	3700	B	11	1.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Chromium	13		0.55	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Cobalt	5.0		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Copper	6.7	B	0.55	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Iron	12000		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Lead	6.5		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Magnesium	2800		5.5	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Manganese	330		0.55	0.080	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Nickel	12		0.55	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Potassium	700		28	9.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Selenium	0.39	J	0.55	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Silver	0.21	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Sodium	230		55	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Vanadium	29		0.28	0.065	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1
Zinc	24	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 06:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.36	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:28	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B09 (0-3)

Lab Sample ID: 500-144861-16

Date Collected: 05/03/18 11:45

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 84.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:28	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:28	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:28	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:28	1
Manganese	0.14		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:28	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:28	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:28	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:28	1
Zinc	0.038	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:28	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:18	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0058	mg/Kg	☼	05/11/18 20:29	05/14/18 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU			05/10/18 17:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B10 (0-3)

Lab Sample ID: 500-144861-17

Date Collected: 05/03/18 11:55

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1
Xylenes, Total	<0.0033		0.0033	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/04/18 18:15	05/14/18 19:54	1
Dibromofluoromethane	111		75 - 126	05/04/18 18:15	05/14/18 19:54	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	05/04/18 18:15	05/14/18 19:54	1
Toluene-d8 (Surr)	109		75 - 124	05/04/18 18:15	05/14/18 19:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B10 (0-3)

Lab Sample ID: 500-144861-17

Date Collected: 05/03/18 11:55

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Methylnaphthalene	<0.072		0.072	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Hexachlorobenzene	<0.072		0.072	0.0082	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Phenanthrene	<0.035		0.035	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Fluoranthene	<0.035		0.035	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Pyrene	<0.035		0.035	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B10 (0-3)

Lab Sample ID: 500-144861-17

Date Collected: 05/03/18 11:55

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Benzo[b]fluoranthene	<0.035		0.035	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Benzo[a]pyrene	<0.035		0.035	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	131		46 - 133	05/10/18 07:05	05/11/18 06:01	1
Phenol-d5	116		46 - 125	05/10/18 07:05	05/11/18 06:01	1
Nitrobenzene-d5	110		41 - 120	05/10/18 07:05	05/11/18 06:01	1
2-Fluorobiphenyl	117		44 - 121	05/10/18 07:05	05/11/18 06:01	1
2,4,6-Tribromophenol	87		25 - 139	05/10/18 07:05	05/11/18 06:01	1
Terphenyl-d14	123		35 - 160	05/10/18 07:05	05/11/18 06:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Arsenic	3.0		0.52	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Barium	38	B	0.52	0.059	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Beryllium	0.39		0.21	0.049	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Boron	2.9		2.6	0.24	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Cadmium	0.16	B	0.10	0.019	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Calcium	12000	B	10	1.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Chromium	12		0.52	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Cobalt	4.7		0.26	0.068	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Copper	6.7	B	0.52	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Iron	10000		10	5.4	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Lead	7.8		0.26	0.12	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Magnesium	7900		5.2	2.6	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Manganese	230		0.52	0.075	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Nickel	11		0.52	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Potassium	740		26	9.2	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Selenium	<0.52		0.52	0.31	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Silver	0.18	J	0.26	0.067	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Sodium	140		52	7.7	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Vanadium	24		0.26	0.061	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1
Zinc	30	B	1.0	0.46	mg/Kg	☼	05/08/18 17:18	05/10/18 06:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.32	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:32	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B10 (0-3)

Lab Sample ID: 500-144861-17

Date Collected: 05/03/18 11:55

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:32	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:32	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:32	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:32	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:32	1
Manganese	0.61		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:32	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:32	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:32	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:32	1
Zinc	<0.50	^	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:32	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.69		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:30	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.018	0.0060	mg/Kg	☼	05/11/18 20:29	05/14/18 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3		0.20	0.20	SU			05/10/18 17:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B12 (0-6)

Lab Sample ID: 500-144861-19

Date Collected: 05/03/18 12:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 81.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.024		0.024	0.010	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Benzene	<0.0024		0.0024	0.00061	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Bromodichloromethane	<0.0024		0.0024	0.00049	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Bromoform	<0.0024		0.0024	0.00070	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Bromomethane	<0.0060		0.0060	0.0023	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
2-Butanone (MEK)	<0.0060		0.0060	0.0027	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Carbon disulfide	<0.0060		0.0060	0.0012	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Carbon tetrachloride	<0.0024		0.0024	0.00070	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Chlorobenzene	<0.0024		0.0024	0.00089	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Chloroethane	<0.0060		0.0060	0.0018	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Chloroform	<0.0024		0.0024	0.00083	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Chloromethane	<0.0060		0.0060	0.0024	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
cis-1,2-Dichloroethene	<0.0024		0.0024	0.00067	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
cis-1,3-Dichloropropene	<0.0024		0.0024	0.00072	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Dibromochloromethane	<0.0024		0.0024	0.00079	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,1-Dichloroethane	<0.0024		0.0024	0.00082	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,2-Dichloroethane	<0.0060		0.0060	0.0019	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,1-Dichloroethene	<0.0024		0.0024	0.00083	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,2-Dichloropropane	<0.0024		0.0024	0.00062	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,3-Dichloropropane, Total	<0.0024		0.0024	0.00084	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Ethylbenzene	<0.0024		0.0024	0.0011	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
2-Hexanone	<0.0060		0.0060	0.0019	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Methylene Chloride	<0.0060		0.0060	0.0024	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
4-Methyl-2-pentanone (MIBK)	<0.0060		0.0060	0.0018	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Methyl tert-butyl ether	<0.0024		0.0024	0.00070	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Styrene	<0.0024		0.0024	0.00073	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,1,2,2-Tetrachloroethane	<0.0024		0.0024	0.00077	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Tetrachloroethene	<0.0024		0.0024	0.00082	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Toluene	<0.0024		0.0024	0.00061	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
trans-1,2-Dichloroethene	<0.0024		0.0024	0.0011	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
trans-1,3-Dichloropropene	<0.0024		0.0024	0.00084	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,1,1-Trichloroethane	<0.0024		0.0024	0.00081	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
1,1,2-Trichloroethane	<0.0024		0.0024	0.0010	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Trichloroethene	<0.0024		0.0024	0.00081	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Vinyl acetate	<0.0060		0.0060	0.0021	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Vinyl chloride	<0.0024		0.0024	0.0011	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1
Xylenes, Total	<0.0048		0.0048	0.00077	mg/Kg	☼	05/04/18 18:15	05/15/18 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/04/18 18:15	05/15/18 15:28	1
Dibromofluoromethane	84		75 - 126	05/04/18 18:15	05/15/18 15:28	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/04/18 18:15	05/15/18 15:28	1
Toluene-d8 (Surr)	93		75 - 124	05/04/18 18:15	05/15/18 15:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B12 (0-6)

Lab Sample ID: 500-144861-19

Date Collected: 05/03/18 12:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 81.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B12 (0-6)

Lab Sample ID: 500-144861-19

Date Collected: 05/03/18 12:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 81.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Bis(2-ethylhexyl) phthalate	0.12	J	0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 06:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	142	X	46 - 133	05/10/18 07:05	05/11/18 06:51	1
Phenol-d5	125		46 - 125	05/10/18 07:05	05/11/18 06:51	1
Nitrobenzene-d5	117		41 - 120	05/10/18 07:05	05/11/18 06:51	1
2-Fluorobiphenyl	121		44 - 121	05/10/18 07:05	05/11/18 06:51	1
2,4,6-Tribromophenol	78		25 - 139	05/10/18 07:05	05/11/18 06:51	1
Terphenyl-d14	130		35 - 160	05/10/18 07:05	05/11/18 06:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Arsenic	2.4		0.56	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Barium	79	B	0.56	0.064	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Beryllium	0.54		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Boron	2.8		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Cadmium	0.22	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Calcium	9100	B	11	1.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Chromium	19		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Cobalt	4.4		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Copper	11	B	0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Iron	14000		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Lead	15		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Magnesium	6100		5.6	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Manganese	190		0.56	0.081	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Nickel	12		0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Potassium	740		28	9.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Selenium	0.45	J	0.56	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Silver	0.22	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Sodium	320		56	8.3	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Vanadium	40		0.28	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1
Zinc	52	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 06:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:40	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Client Sample ID: 2273V-09-B12 (0-6)

Lab Sample ID: 500-144861-19

Date Collected: 05/03/18 12:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 81.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:40	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:40	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:40	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:40	1
Manganese	0.20		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:40	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:40	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:40	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:40	1
Zinc	0.053	J ^	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:40	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.34		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:38	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.020	0.0067	mg/Kg	☼	05/11/18 20:29	05/14/18 14:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU			05/10/18 18:00	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-4

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D Trebant
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144861
 Chain of Custody Number: _____
 Page 2 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		# of Containers		Matrix		Matrix			
Project Location/State		Lab PM		Date		Time		Matrix			
Sampler		Lab PM		Date		Time		Matrix			
E7B		1009341.0041.02								VOCs SVOCs TCLP/SLP Total Metals % Solids pH	
FAP 525 (us 20)											
McHenry Co, IL		R Wymant									
E Fisher		R Wymant									
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					Comments
16		2273V-09-B09(0-3)	5/2/18	1145	2	S	X	X	X	X	
17		2273V-09-B10(0-3)		1155	2	S	X	X	X	X	
18		2273V-09-B11(0-6)		1205	2	S	X	X	X	X	
19		2273V-09-B12(0-6)		1220	2	S	X	X	X	X	

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company E7B	Date 5/3/18	Time 1545	Received By <u>[Signature]</u> Company TA	Date 5/3/18	Time 1545
Relinquished By <u>[Signature]</u> Company TA	Date 5/3/18	Time 1740	Received By <u>[Signature]</u> Company TA-CPL	Date 5/4/18	Time 0715

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-4

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145111-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/22/2018 4:04:36 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Job ID: 500-145111-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145111-2

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The following sample was diluted to bring the concentration of target and non-target analytes within the calibration range: 2273V-09-B01 (0-3) (500-145111-11). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B08 (0-4)

Lab Sample ID: 500-145111-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.58	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	4.4	B	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	6300	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.8		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.58	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	880		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.58		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.28	J	0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Sodium	990		58	8.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.44	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	36		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B07 (0-3)

Lab Sample ID: 500-145111-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	22		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.23		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	4.2	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	56000	B	55	9.3	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.6		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.2		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	5.2		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8700		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	4.0		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	200		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.0		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	550		140	49	mg/Kg	5	☼	6010B	Total/NA
Silver	0.075	J	0.28	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	270		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	14		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B07 (0-3) (Continued)

Lab Sample ID: 500-145111-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.053	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.50		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.18		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0068	J	0.018	0.0060	mg/Kg	1	✳	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B06 (0-3)

Lab Sample ID: 500-145111-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.6		0.52	0.18	mg/Kg	1	✳	6010B	Total/NA
Barium	41		0.52	0.059	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.46		0.21	0.048	mg/Kg	1	✳	6010B	Total/NA
Boron	3.2	B	2.6	0.24	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.20	B	0.10	0.019	mg/Kg	1	✳	6010B	Total/NA
Calcium	8100	B	10	1.8	mg/Kg	1	✳	6010B	Total/NA
Chromium	16		0.52	0.26	mg/Kg	1	✳	6010B	Total/NA
Cobalt	6.5		0.26	0.068	mg/Kg	1	✳	6010B	Total/NA
Copper	10		0.52	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	21000		10	5.4	mg/Kg	1	✳	6010B	Total/NA
Lead	8.7		0.26	0.12	mg/Kg	1	✳	6010B	Total/NA
Magnesium	6100		5.2	2.6	mg/Kg	1	✳	6010B	Total/NA
Manganese	190		0.52	0.075	mg/Kg	1	✳	6010B	Total/NA
Nickel	14		0.52	0.15	mg/Kg	1	✳	6010B	Total/NA
Potassium	840		26	9.2	mg/Kg	1	✳	6010B	Total/NA
Silver	0.30		0.26	0.067	mg/Kg	1	✳	6010B	Total/NA
Sodium	480		52	7.7	mg/Kg	1	✳	6010B	Total/NA
Vanadium	40		0.26	0.061	mg/Kg	1	✳	6010B	Total/NA
Zinc	27		1.0	0.45	mg/Kg	1	✳	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.019	0.0062	mg/Kg	1	✳	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B05 (0-3)

Lab Sample ID: 500-145111-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.0082	J	0.037	0.0068	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.0077	J	0.037	0.0073	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.0083	J	0.037	0.0080	mg/Kg	1	✳	8270D	Total/NA
Arsenic	2.6		0.49	0.17	mg/Kg	1	✳	6010B	Total/NA
Barium	27		0.49	0.056	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.40		0.20	0.046	mg/Kg	1	✳	6010B	Total/NA
Boron	2.3	J B	2.5	0.23	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.093	J B	0.099	0.018	mg/Kg	1	✳	6010B	Total/NA
Calcium	1400	B	9.9	1.7	mg/Kg	1	✳	6010B	Total/NA
Chromium	11		0.49	0.24	mg/Kg	1	✳	6010B	Total/NA
Cobalt	3.1		0.25	0.065	mg/Kg	1	✳	6010B	Total/NA
Copper	5.2		0.49	0.14	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B05 (0-3) (Continued)

Lab Sample ID: 500-145111-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	10000		9.9	5.1	mg/Kg	1	☼	6010B	Total/NA
Lead	6.4		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1600		4.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	79		0.49	0.071	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.7		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	460		25	8.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.16	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		49	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	25		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Zinc	20		0.99	0.43	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.050		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.026		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B04 (0-3)

Lab Sample ID: 500-145111-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.9		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	77		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.51		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	1500	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.3		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	9.9		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2500		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	480		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	810		28	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J	0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Sodium	790		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	34		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.66		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.018		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B03 (0-3)

Lab Sample ID: 500-145111-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.8		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	76		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	3.1	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B03 (0-3) (Continued)

Lab Sample ID: 500-145111-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.21	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	2600	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.7		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1800		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	420		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.9		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.32	J	0.54	0.31	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.27	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	450		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	43		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.058	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	2.2		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.052		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.031	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.022		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-09-B02 (0-3)

Lab Sample ID: 500-145111-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.6		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.37		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	2.7	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	6400	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	5.9		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	8.5		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4400		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	210		0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.6		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	660		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	380		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	24		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.30	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.016	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B02 (0-3) (Continued)

Lab Sample ID: 500-145111-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145111-4	2273V-09-B08 (0-4)	Solid	05/08/18 12:00	05/08/18 17:45
500-145111-5	2273V-09-B07 (0-3)	Solid	05/08/18 12:07	05/08/18 17:45
500-145111-6	2273V-09-B06 (0-3)	Solid	05/08/18 12:14	05/08/18 17:45
500-145111-7	2273V-09-B05 (0-3)	Solid	05/08/18 12:19	05/08/18 17:45
500-145111-8	2273V-09-B04 (0-3)	Solid	05/08/18 12:30	05/08/18 17:45
500-145111-9	2273V-09-B03 (0-3)	Solid	05/08/18 12:33	05/08/18 17:45
500-145111-10	2273V-09-B02 (0-3)	Solid	05/08/18 12:38	05/08/18 17:45



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B08 (0-4)

Lab Sample ID: 500-145111-4

Date Collected: 05/08/18 12:00

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 74.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0094	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Benzene	<0.0022		0.0022	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Bromodichloromethane	<0.0022		0.0022	0.00044	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Bromoform	<0.0022		0.0022	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
2-Butanone (MEK)	<0.0054		0.0054	0.0024	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Carbon disulfide	<0.0054		0.0054	0.0011	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Carbon tetrachloride	<0.0022		0.0022	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Chlorobenzene	<0.0022		0.0022	0.00080	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Chloroethane	<0.0054	*	0.0054	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Chloroform	<0.0022		0.0022	0.00075	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Chloromethane	<0.0054		0.0054	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Dibromochloromethane	<0.0022		0.0022	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,1-Dichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,2-Dichloroethane	<0.0054		0.0054	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,1-Dichloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,2-Dichloropropane	<0.0022		0.0022	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00076	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Methylene Chloride	<0.0054		0.0054	0.0021	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Styrene	<0.0022	*	0.0022	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Tetrachloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Toluene	<0.0022		0.0022	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00096	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00093	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Trichloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Vinyl acetate	<0.0054		0.0054	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Vinyl chloride	<0.0022		0.0022	0.00096	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1
Xylenes, Total	<0.0043		0.0043	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		75 - 131	05/09/18 09:07	05/16/18 17:06	1
Dibromofluoromethane	112		75 - 126	05/09/18 09:07	05/16/18 17:06	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 134	05/09/18 09:07	05/16/18 17:06	1
Toluene-d8 (Surr)	86		75 - 124	05/09/18 09:07	05/16/18 17:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.22		0.22	0.096	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Bis(2-chloroethyl)ether	<0.22	*	0.22	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
1,3-Dichlorobenzene	<0.22		0.22	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
1,4-Dichlorobenzene	<0.22		0.22	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B08 (0-4)

Lab Sample ID: 500-145111-4

Date Collected: 05/08/18 12:00

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 74.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.22		0.22	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Methylphenol	<0.22		0.22	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,2'-oxybis[1-chloropropane]	<0.22		0.22	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
N-Nitrosodi-n-propylamine	<0.087	*	0.087	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Hexachloroethane	<0.22		0.22	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Chlorophenol	<0.22		0.22	0.074	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Nitrobenzene	<0.043		0.043	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
1,2,4-Trichlorobenzene	<0.22		0.22	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Isophorone	<0.22	*	0.22	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4-Dimethylphenol	<0.43		0.43	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Hexachlorobutadiene	<0.22		0.22	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Naphthalene	<0.043		0.043	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4-Dichlorophenol	<0.43		0.43	0.10	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Chloroaniline	<0.87		0.87	0.20	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4,6-Trichlorophenol	<0.43		0.43	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4,5-Trichlorophenol	<0.43		0.43	0.098	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Hexachlorocyclopentadiene	<0.87		0.87	0.25	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Methylnaphthalene	<0.087		0.087	0.0079	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Nitroaniline	<0.22	*	0.22	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Chloronaphthalene	<0.22		0.22	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Chloro-3-methylphenol	<0.43		0.43	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,6-Dinitrotoluene	<0.22		0.22	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2-Nitrophenol	<0.43		0.43	0.10	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
3-Nitroaniline	<0.43		0.43	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Dimethyl phthalate	<0.22		0.22	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4-Dinitrophenol	<0.87		0.87	0.76	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Acenaphthylene	<0.043		0.043	0.0057	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
2,4-Dinitrotoluene	<0.22		0.22	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Acenaphthene	<0.043		0.043	0.0078	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Dibenzofuran	<0.22		0.22	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Nitrophenol	<0.87		0.87	0.41	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Fluorene	<0.043		0.043	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Nitroaniline	<0.43		0.43	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Hexachlorobenzene	<0.087		0.087	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Diethyl phthalate	<0.22		0.22	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Pentachlorophenol	<0.87		0.87	0.69	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
N-Nitrosodiphenylamine	<0.22		0.22	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
4,6-Dinitro-2-methylphenol	<0.87		0.87	0.35	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Phenanthrene	<0.043		0.043	0.0060	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Anthracene	<0.043		0.043	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Carbazole	<0.22		0.22	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Di-n-butyl phthalate	<0.22		0.22	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Fluoranthene	<0.043		0.043	0.0080	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Pyrene	<0.043		0.043	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Butyl benzyl phthalate	<0.22		0.22	0.082	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Benzo[a]anthracene	<0.043		0.043	0.0058	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B08 (0-4)

Lab Sample ID: 500-145111-4

Date Collected: 05/08/18 12:00

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 74.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.043		0.043	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
3,3'-Dichlorobenzidine	<0.22		0.22	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.079	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Di-n-octyl phthalate	<0.22		0.22	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Benzo[b]fluoranthene	<0.043		0.043	0.0093	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Benzo[k]fluoranthene	<0.043		0.043	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Benzo[a]pyrene	<0.043		0.043	0.0084	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Indeno[1,2,3-cd]pyrene	<0.043		0.043	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Dibenz(a,h)anthracene	<0.043		0.043	0.0083	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
Benzo[g,h,i]perylene	<0.043		0.043	0.014	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1
3 & 4 Methylphenol	<0.22		0.22	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	116		46 - 133	05/15/18 07:06	05/16/18 13:14	1
Phenol-d5	105		46 - 125	05/15/18 07:06	05/16/18 13:14	1
Nitrobenzene-d5	95		41 - 120	05/15/18 07:06	05/16/18 13:14	1
2-Fluorobiphenyl	103		44 - 121	05/15/18 07:06	05/16/18 13:14	1
2,4,6-Tribromophenol	97		25 - 139	05/15/18 07:06	05/16/18 13:14	1
Terphenyl-d14	136		35 - 160	05/15/18 07:06	05/16/18 13:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Arsenic	4.2		0.58	0.20	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Barium	65		0.58	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Beryllium	0.60		0.23	0.055	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Boron	4.4 B		2.9	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Cadmium	0.27 B		0.12	0.021	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Calcium	6300 B		12	2.0	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Chromium	18		0.58	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Cobalt	5.8		0.29	0.077	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Copper	17		0.58	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Iron	20000		12	6.1	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Lead	17		0.29	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Magnesium	4000		5.8	2.9	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Manganese	130		0.58	0.085	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Nickel	15		0.58	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Potassium	880		29	10	mg/Kg	☼	05/11/18 07:44	05/16/18 01:59	1
Selenium	0.58		0.58	0.34	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Silver	0.28 J		0.29	0.075	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Sodium	990		58	8.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Thallium	0.44 J		0.58	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Vanadium	36		0.29	0.069	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1
Zinc	51		1.2	0.51	mg/Kg	☼	05/11/18 07:44	05/11/18 22:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.17 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:56	1
Boron	0.083 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B08 (0-4)

Lab Sample ID: 500-145111-4

Date Collected: 05/08/18 12:00

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 74.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:56	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:56	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:56	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:56	1
Manganese	0.21		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:56	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:56	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:56	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:56	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:56	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.43		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 05:13	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:58	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.020	0.0067	mg/Kg	☼	05/16/18 16:45	05/17/18 10:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/14/18 16:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B07 (0-3)

Lab Sample ID: 500-145111-5

Date Collected: 05/08/18 12:07

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 89.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Chloroethane	<0.0048	*	0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Styrene	<0.0019	*	0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		75 - 131	05/09/18 09:07	05/16/18 17:35	1
Dibromofluoromethane	99		75 - 126	05/09/18 09:07	05/16/18 17:35	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	05/09/18 09:07	05/16/18 17:35	1
Toluene-d8 (Surr)	111		75 - 124	05/09/18 09:07	05/16/18 17:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.077	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Bis(2-chloroethyl)ether	<0.18	*	0.18	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B07 (0-3)

Lab Sample ID: 500-145111-5

Date Collected: 05/08/18 12:07

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
N-Nitrosodi-n-propylamine	<0.070	*	0.070	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Chlorophenol	<0.18		0.18	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Isophorone	<0.18	*	0.18	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4,5-Trichlorophenol	<0.35		0.35	0.079	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Methylnaphthalene	<0.070		0.070	0.0064	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Nitroaniline	<0.18	*	0.18	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Chloronaphthalene	<0.18		0.18	0.038	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,6-Dinitrotoluene	<0.18		0.18	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2-Nitrophenol	<0.35		0.35	0.082	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
2,4-Dinitrotoluene	<0.18		0.18	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Hexachlorobenzene	<0.070		0.070	0.0081	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Pentachlorophenol	<0.70		0.70	0.56	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Anthracene	<0.035		0.035	0.0058	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Carbazole	<0.18		0.18	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Pyrene	<0.035		0.035	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Butyl benzyl phthalate	<0.18		0.18	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B07 (0-3)

Lab Sample ID: 500-145111-5

Date Collected: 05/08/18 12:07

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Benzo[b]fluoranthene	<0.035		0.035	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Benzo[a]pyrene	<0.035		0.035	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0090	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	118		46 - 133	05/15/18 07:06	05/16/18 13:43	1
Phenol-d5	111		46 - 125	05/15/18 07:06	05/16/18 13:43	1
Nitrobenzene-d5	97		41 - 120	05/15/18 07:06	05/16/18 13:43	1
2-Fluorobiphenyl	108		44 - 121	05/15/18 07:06	05/16/18 13:43	1
2,4,6-Tribromophenol	102		25 - 139	05/15/18 07:06	05/16/18 13:43	1
Terphenyl-d14	140		35 - 160	05/15/18 07:06	05/16/18 13:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Arsenic	2.9		0.55	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Barium	22		0.55	0.063	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Beryllium	0.23		0.22	0.051	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Boron	4.2	B	2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Cadmium	0.15	B	0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Calcium	56000	B	55	9.3	mg/Kg	☼	05/11/18 07:44	05/16/18 02:03	5
Chromium	8.6		0.55	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Cobalt	3.2		0.28	0.072	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Copper	5.2		0.55	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Iron	8700		11	5.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Lead	4.0		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Magnesium	30000		5.5	2.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Manganese	200		0.55	0.080	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Nickel	7.0		0.55	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Potassium	550		140	49	mg/Kg	☼	05/11/18 07:44	05/16/18 02:03	5
Selenium	<0.55		0.55	0.32	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Silver	0.075	J	0.28	0.071	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Sodium	270		55	8.2	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Vanadium	17		0.28	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1
Zinc	14		1.1	0.48	mg/Kg	☼	05/11/18 07:44	05/11/18 22:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.23	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:00	1
Boron	0.053	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B07 (0-3)

Lab Sample ID: 500-145111-5

Date Collected: 05/08/18 12:07

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 89.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:00	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:00	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:00	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:00	1
Manganese	0.50		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:00	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:00	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:00	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:00	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:00	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.18		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 05:17	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:02	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:02	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0068	J	0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/14/18 16:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B06 (0-3)

Lab Sample ID: 500-145111-6

Date Collected: 05/08/18 12:14

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Chloroform	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Styrene	<0.0017	*	0.0017	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/09/18 09:07	05/16/18 18:02	1
Dibromofluoromethane	110		75 - 126	05/09/18 09:07	05/16/18 18:02	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	05/09/18 09:07	05/16/18 18:02	1
Toluene-d8 (Surr)	111		75 - 124	05/09/18 09:07	05/16/18 18:02	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B06 (0-3)

Lab Sample ID: 500-145111-6

Date Collected: 05/08/18 12:14

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
N-Nitrosodi-n-propylamine	<0.077	*	0.077	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Nitroaniline	<0.19	*	0.19	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B06 (0-3)

Lab Sample ID: 500-145111-6

Date Collected: 05/08/18 12:14

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 14:11	1
Phenol-d5	108		46 - 125	05/15/18 07:06	05/16/18 14:11	1
Nitrobenzene-d5	96		41 - 120	05/15/18 07:06	05/16/18 14:11	1
2-Fluorobiphenyl	104		44 - 121	05/15/18 07:06	05/16/18 14:11	1
2,4,6-Tribromophenol	103		25 - 139	05/15/18 07:06	05/16/18 14:11	1
Terphenyl-d14	137		35 - 160	05/15/18 07:06	05/16/18 14:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Arsenic	6.6		0.52	0.18	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Barium	41		0.52	0.059	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Beryllium	0.46		0.21	0.048	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Boron	3.2 B		2.6	0.24	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Cadmium	0.20 B		0.10	0.019	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Calcium	8100 B		10	1.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Chromium	16		0.52	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Cobalt	6.5		0.26	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Copper	10		0.52	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Iron	21000		10	5.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Lead	8.7		0.26	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Magnesium	6100		5.2	2.6	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Manganese	190		0.52	0.075	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Nickel	14		0.52	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Potassium	840		26	9.2	mg/Kg	☼	05/11/18 07:44	05/16/18 02:07	1
Selenium	<0.52		0.52	0.30	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Silver	0.30		0.26	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Sodium	480		52	7.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Vanadium	40		0.26	0.061	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1
Zinc	27		1.0	0.45	mg/Kg	☼	05/11/18 07:44	05/11/18 22:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.31	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:04	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B06 (0-3)

Lab Sample ID: 500-145111-6

Date Collected: 05/08/18 12:14

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.9

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Iron	<0.40		0.40	0.20	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Manganese	0.34		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Silver	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 20:04	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/12/18 14:18	05/14/18 20:04	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.30		0.025	0.010	mg/L	-	05/12/18 14:16	05/16/18 05:21	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L	-	05/12/18 14:18	05/14/18 20:05	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	05/12/18 14:18	05/14/18 20:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/14/18 18:37	05/15/18 23:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0062	mg/Kg	☼	05/16/18 16:45	05/17/18 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/14/18 16:16	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B05 (0-3)

Lab Sample ID: 500-145111-7

Date Collected: 05/08/18 12:19

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0085	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Benzene	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Bromodichloromethane	<0.0019		0.0019	0.00040	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Chloroethane	<0.0049	*	0.0049	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Chloroform	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Dibromochloromethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,1-Dichloroethane	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Styrene	<0.0019	*	0.0019	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/09/18 09:07	05/16/18 18:29	1
Dibromofluoromethane	112		75 - 126	05/09/18 09:07	05/16/18 18:29	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	05/09/18 09:07	05/16/18 18:29	1
Toluene-d8 (Surr)	120		75 - 124	05/09/18 09:07	05/16/18 18:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B05 (0-3)

Lab Sample ID: 500-145111-7

Date Collected: 05/08/18 12:19

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
N-Nitrosodi-n-propylamine	<0.074	*	0.074	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Isophorone	<0.19	*	0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Nitroaniline	<0.19	*	0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Hexachlorobenzene	<0.074		0.074	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Phenanthrene	<0.037		0.037	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Fluoranthene	0.0082	J	0.037	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Pyrene	0.0077	J	0.037	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B05 (0-3)

Lab Sample ID: 500-145111-7

Date Collected: 05/08/18 12:19

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Benzo[b]fluoranthene	0.0083	J	0.037	0.0080	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Benzo[a]pyrene	<0.037		0.037	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 14:40	1
Phenol-d5	96		46 - 125	05/15/18 07:06	05/16/18 14:40	1
Nitrobenzene-d5	88		41 - 120	05/15/18 07:06	05/16/18 14:40	1
2-Fluorobiphenyl	97		44 - 121	05/15/18 07:06	05/16/18 14:40	1
2,4,6-Tribromophenol	85		25 - 139	05/15/18 07:06	05/16/18 14:40	1
Terphenyl-d14	130		35 - 160	05/15/18 07:06	05/16/18 14:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.99		0.99	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Arsenic	2.6		0.49	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Barium	27		0.49	0.056	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Beryllium	0.40		0.20	0.046	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Boron	2.3	J B	2.5	0.23	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Cadmium	0.093	J B	0.099	0.018	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Calcium	1400	B	9.9	1.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Chromium	11		0.49	0.24	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Cobalt	3.1		0.25	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Copper	5.2		0.49	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Iron	10000		9.9	5.1	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Lead	6.4		0.25	0.11	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Magnesium	1600		4.9	2.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Manganese	79		0.49	0.071	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Nickel	6.7		0.49	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Potassium	460		25	8.7	mg/Kg	☼	05/11/18 07:44	05/16/18 02:11	1
Selenium	<0.49		0.49	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Silver	0.16	J	0.25	0.064	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Sodium	330		49	7.3	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Thallium	<0.49		0.49	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Vanadium	25		0.25	0.058	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1
Zinc	20		0.99	0.43	mg/Kg	☼	05/11/18 07:44	05/11/18 22:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.18	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:08	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B05 (0-3)

Lab Sample ID: 500-145111-7

Date Collected: 05/08/18 12:19

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:08	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:08	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:08	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:08	1
Manganese	0.050		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:08	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:08	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:08	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:08	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:08	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:09	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:09	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0058	mg/Kg	☼	05/16/18 16:45	05/17/18 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/14/18 16:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B04 (0-3)

Lab Sample ID: 500-145111-8

Date Collected: 05/08/18 12:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0081	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	05/09/18 09:07	05/17/18 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/09/18 09:07	05/17/18 16:53	1
Dibromofluoromethane	84		75 - 126	05/09/18 09:07	05/17/18 16:53	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/09/18 09:07	05/17/18 16:53	1
Toluene-d8 (Surr)	92		75 - 124	05/09/18 09:07	05/17/18 16:53	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B04 (0-3)

Lab Sample ID: 500-145111-8

Date Collected: 05/08/18 12:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
N-Nitrosodi-n-propylamine	<0.075	*	0.075	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Isophorone	<0.19	*	0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Nitroaniline	<0.19	*	0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B04 (0-3)

Lab Sample ID: 500-145111-8

Date Collected: 05/08/18 12:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 15:08	1
Phenol-d5	105		46 - 125	05/15/18 07:06	05/16/18 15:08	1
Nitrobenzene-d5	91		41 - 120	05/15/18 07:06	05/16/18 15:08	1
2-Fluorobiphenyl	102		44 - 121	05/15/18 07:06	05/16/18 15:08	1
2,4,6-Tribromophenol	95		25 - 139	05/15/18 07:06	05/16/18 15:08	1
Terphenyl-d14	138		35 - 160	05/15/18 07:06	05/16/18 15:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Arsenic	3.9		0.57	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Barium	77		0.57	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Beryllium	0.51		0.23	0.053	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Boron	2.4	J B	2.8	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Cadmium	0.17	B	0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Calcium	1500	B	11	1.9	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Chromium	16		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Cobalt	9.3		0.28	0.074	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Copper	11		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Iron	15000		11	5.9	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Lead	9.9		0.28	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Magnesium	2500		5.7	2.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Manganese	480		0.57	0.082	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Nickel	12		0.57	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Potassium	810		28	10	mg/Kg	☼	05/11/18 07:44	05/16/18 02:15	1
Selenium	<0.57		0.57	0.33	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Silver	0.23	J	0.28	0.073	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Sodium	790		57	8.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Vanadium	34		0.28	0.067	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1
Zinc	34		1.1	0.50	mg/Kg	☼	05/11/18 07:44	05/11/18 22:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.20	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:12	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B04 (0-3)

Lab Sample ID: 500-145111-8

Date Collected: 05/08/18 12:30

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 84.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:12	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:12	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:12	1
Iron	0.66		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:12	1
Manganese	0.023	J	0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:12	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:12	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:12	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:12	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:12	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:12	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0060	mg/Kg	☼	05/16/18 16:45	05/17/18 10:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU			05/14/18 16:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B03 (0-3)

Lab Sample ID: 500-145111-9

Date Collected: 05/08/18 12:33

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Chloroethane	<0.0046	*	0.0046	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Styrene	<0.0018	*	0.0018	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/09/18 09:07	05/16/18 19:24	1
Dibromofluoromethane	109		75 - 126	05/09/18 09:07	05/16/18 19:24	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	05/09/18 09:07	05/16/18 19:24	1
Toluene-d8 (Surr)	95		75 - 124	05/09/18 09:07	05/16/18 19:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B03 (0-3)

Lab Sample ID: 500-145111-9

Date Collected: 05/08/18 12:33

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
N-Nitrosodi-n-propylamine	<0.076	*	0.076	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Isophorone	<0.19	*	0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Methylnaphthalene	<0.076		0.076	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Nitroaniline	<0.19	*	0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B03 (0-3)

Lab Sample ID: 500-145111-9

Date Collected: 05/08/18 12:33

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	119		46 - 133	05/15/18 07:06	05/16/18 15:37	1
Phenol-d5	109		46 - 125	05/15/18 07:06	05/16/18 15:37	1
Nitrobenzene-d5	90		41 - 120	05/15/18 07:06	05/16/18 15:37	1
2-Fluorobiphenyl	101		44 - 121	05/15/18 07:06	05/16/18 15:37	1
2,4,6-Tribromophenol	93		25 - 139	05/15/18 07:06	05/16/18 15:37	1
Terphenyl-d14	137		35 - 160	05/15/18 07:06	05/16/18 15:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Arsenic	2.8		0.54	0.18	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Barium	76		0.54	0.061	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Beryllium	0.44		0.21	0.050	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Boron	3.1 B		2.7	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Cadmium	0.21 B		0.11	0.019	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Calcium	2600 B		11	1.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Chromium	14		0.54	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Cobalt	5.7		0.27	0.070	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Copper	11		0.54	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Iron	13000		11	5.6	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Lead	19		0.27	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Magnesium	1800		5.4	2.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Manganese	420		0.54	0.078	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Nickel	9.9		0.54	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Potassium	1100		27	9.5	mg/Kg	☼	05/11/18 07:44	05/16/18 02:27	1
Selenium	0.32 J		0.54	0.31	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Silver	0.18 J		0.27	0.069	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Sodium	450		54	7.9	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Vanadium	27		0.27	0.063	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1
Zinc	43		1.1	0.47	mg/Kg	☼	05/11/18 07:44	05/11/18 22:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.17 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:16	1
Boron	0.058 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B03 (0-3)

Lab Sample ID: 500-145111-9

Date Collected: 05/08/18 12:33

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:16	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:16	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:16	1
Iron	2.2		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:16	1
Manganese	0.052		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:16	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:16	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:16	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:16	1
Zinc	0.031	J	0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:16	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:22	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0059	mg/Kg	☼	05/16/18 16:45	05/17/18 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2		0.20	0.20	SU			05/14/18 16:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B02 (0-3)

Lab Sample ID: 500-145111-10

Date Collected: 05/08/18 12:38

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Chloroethane	<0.0040	*	0.0040	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Styrene	<0.0016	*	0.0016	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	05/09/18 09:07	05/16/18 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/09/18 09:07	05/16/18 19:51	1
Dibromofluoromethane	109		75 - 126	05/09/18 09:07	05/16/18 19:51	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	05/09/18 09:07	05/16/18 19:51	1
Toluene-d8 (Surr)	101		75 - 124	05/09/18 09:07	05/16/18 19:51	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.056	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B02 (0-3)

Lab Sample ID: 500-145111-10

Date Collected: 05/08/18 12:38

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
N-Nitrosodi-n-propylamine	<0.076	*	0.076	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Isophorone	<0.19	*	0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Nitroaniline	<0.19	*	0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B02 (0-3)

Lab Sample ID: 500-145111-10

Date Collected: 05/08/18 12:38

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	117		46 - 133	05/15/18 07:06	05/16/18 16:05	1
Phenol-d5	107		46 - 125	05/15/18 07:06	05/16/18 16:05	1
Nitrobenzene-d5	92		41 - 120	05/15/18 07:06	05/16/18 16:05	1
2-Fluorobiphenyl	101		44 - 121	05/15/18 07:06	05/16/18 16:05	1
2,4,6-Tribromophenol	97		25 - 139	05/15/18 07:06	05/16/18 16:05	1
Terphenyl-d14	134		35 - 160	05/15/18 07:06	05/16/18 16:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Arsenic	2.6		0.54	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Barium	40		0.54	0.062	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Beryllium	0.37		0.22	0.051	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Boron	2.7	B	2.7	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Cadmium	0.15	B	0.11	0.020	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Calcium	6400	B	11	1.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Chromium	11		0.54	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Cobalt	4.3		0.27	0.071	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Copper	5.9		0.54	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Iron	10000		11	5.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Lead	8.5		0.27	0.13	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Magnesium	4400		5.4	2.7	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Manganese	210		0.54	0.079	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Nickel	8.6		0.54	0.16	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Potassium	660		27	9.6	mg/Kg	☼	05/11/18 07:44	05/16/18 02:31	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Silver	0.21	J	0.27	0.070	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Sodium	380		54	8.0	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Vanadium	27		0.27	0.064	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1
Zinc	24		1.1	0.48	mg/Kg	☼	05/11/18 07:44	05/11/18 22:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.28	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 20:20	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 20:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Client Sample ID: 2273V-09-B02 (0-3)

Lab Sample ID: 500-145111-10

Date Collected: 05/08/18 12:38

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 87.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 20:20	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:20	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:20	1
Iron	0.30	J	0.40	0.20	mg/L		05/12/18 14:18	05/14/18 20:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 20:20	1
Manganese	0.14		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:20	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:20	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 20:20	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 20:20	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 20:20	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 20:26	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 20:26	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0059	mg/Kg	☼	05/16/18 16:45	05/17/18 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU			05/14/18 16:31	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145111
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341.0041.02									
Project Name		Lab Project #		# of Containers		VOC		SVOC		Total/7CLP Metals	
176-001-W041											
Project Location/State		Lab PM		Matrix		pH		Percent Solids			
Marengo, IL		D. Wright									
Sampler		Sampling									
MF, JH		Date		Time							
4	MS/MSD	Sample ID	5/8/18	1200	5	S	X	X	X	X	
5		2273V-09-B08(0-4)	5/8/18	1207	5	S	X	X	X	X	
6		2273V-09-B07(0-3)	5/8/18	1214	5	S	X	X	X	X	
7		2273V-09-B06(0-3)	5/8/18	1219	5	S	X	X	X	X	
8		2273V-09-B05(0-3)	5/8/18	1230	5	S	X	X	X	X	
9		2273V-09-B04(0-3)	5/8/18	1232	5	S	X	X	X	X	
10		2273V-09-B03(0-3)	5/8/18	1238	5	S	X	X	X	X	
11		2273V-09-B02(0-3)	5/8/18	1242	5	S	X	X	X	X	
		2273V-09-B01(0-3)									

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client

Disposal by Lab

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: J. Hughes Company: E+E Date: 5/8/18 Time: 1530

Relinquished By: P. Neal Company: TA Date: 5/8/18 Time: 1745

Relinquished By: _____ Company: _____ Date: _____ Time: _____

Received By: P. Neal Company: TA Date: 5/8/18 Time: 1530

Received By: [Signature] Company: TA Date: 05/08/18 Time: 1745

Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier

Shipped

Hand Delivered

Matrix Key

- | | |
|--------------------|---------------------|
| WW - Wastewater | SE - Sediment |
| W - Water | SO - Soil |
| S - Soil | L - Leachate |
| SL - Sludge | WI - Wipe |
| MS - Miscellaneous | DW - Drinking Water |
| OL - Oil | O - Other |
| A - Air | |

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-2

Login Number: 145111

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

18250 Beck Road (ISGS #3696-35)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20423 Longitude: -88.55429
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 2273V-06-B01 was sampled within the construction zone adjacent to ISGS #3696-35 (2273V-6) Commercial Buildings (Golf Creations). Refer to PSI Report for ISGS #3696-35 (2273V-6) Commercial Buildings (Golf Creations) including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J144861-5.

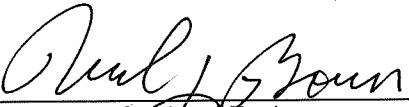
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

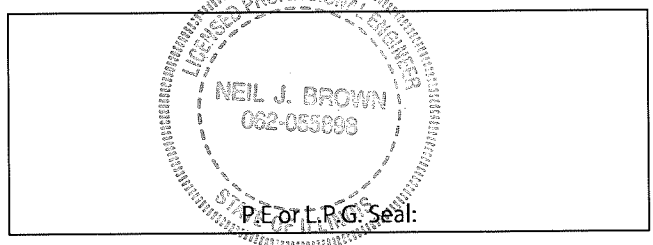
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-35 (Commercial Buildings)	Comparison Criteria					
		MACs			TACO		
BORING	2273V-06-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2273V-06-B01 (0-3)						
MATRIX	Soil						
DEPTH (feet)	0-3						
pH	8						
PID	--						
VOCs (mg/kg)							
Acetone	0.014 J	25	--	--	70,000	100,000	--
SVOCs (mg/kg)							
Benzo(a)anthracene	0.0063 J	0.9	1.8	1.1	1.8	170	--
Benzo(b)fluoranthene	0.011 J	0.9	2.1	1.5	2.1	170	--
Fluoranthene	0.013 J	3,100	--	--	3,100	82,000	--
Pyrene	0.01 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	1.7	11.3	13	--	13	61	--
Barium	43	1,500	--	--	5,500	14,000	--
Beryllium	0.44	22	--	--	160	410	--
Boron	3	40	--	--	16,000	41,000	--
Calcium	7,800	--	--	--	--	--	--
Chromium	14	21	--	--	230	690	--
Cobalt	4.2	20	--	--	4,700	12,000	--
Copper	5.9	2,900	--	--	2,900	8,200	--
Iron	12,000	15,000	15,900	--	--	--	--
Lead	7.4	107	--	--	400	700	--
Magnesium	5,000	325,000	--	--	--	730,000	--
Manganese	170	630	636	--	1,600	4,100	--
Mercury	0.021	0.89	--	--	10	0.1	--
Nickel	10	100	--	--	1,600	4,100	--
Potassium	690	--	--	--	--	--	--
Silver	0.2 J	4.4	--	--	390	1,000	--
Sodium	270	--	--	--	--	--	--
Vanadium	26	550	--	--	550	1,400	--
Zinc	32	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.3 J	--	--	--	--	--	2
Manganese	0.2 L	--	--	--	--	--	0.15
SPLP Metals (mg/L)							
Manganese	0.37 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-5
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
5/17/2018 5:21:32 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Job ID: 500-144861-5

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-144861-5**

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-431902 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: 2273V-06-B01 (0-3) (500-144861-20).

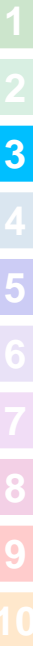
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Client Sample ID: 2273V-06-B01 (0-3)

Lab Sample ID: 500-144861-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.014	J	0.019	0.0083	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.013	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0063	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.7		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	43	B	0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	3.0		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	7800	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.2		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	5.9	B	0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	7.4		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	170		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	690		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	270		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	32	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.37		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-20	2273V-06-B01 (0-3)	Solid	05/03/18 12:35	05/03/18 17:40

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Client Sample ID: 2273V-06-B01 (0-3)

Lab Sample ID: 500-144861-20

Date Collected: 05/03/18 12:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.014	J	0.019	0.0083	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,1,1,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	05/04/18 18:15	05/15/18 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	05/04/18 18:15	05/15/18 15:54	1
Dibromofluoromethane	85		75 - 126	05/04/18 18:15	05/15/18 15:54	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	05/04/18 18:15	05/15/18 15:54	1
Toluene-d8 (Surr)	91		75 - 124	05/04/18 18:15	05/15/18 15:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Client Sample ID: 2273V-06-B01 (0-3)

Lab Sample ID: 500-144861-20

Date Collected: 05/03/18 12:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Fluoranthene	0.013	J	0.038	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Pyrene	0.010	J	0.038	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Benzo[a]anthracene	0.0063	J	0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Client Sample ID: 2273V-06-B01 (0-3)

Lab Sample ID: 500-144861-20

Date Collected: 05/03/18 12:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Benzo[b]fluoranthene	0.011	J	0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 07:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	117		46 - 133	05/10/18 07:05	05/11/18 07:16	1
Phenol-d5	107		46 - 125	05/10/18 07:05	05/11/18 07:16	1
Nitrobenzene-d5	96		41 - 120	05/10/18 07:05	05/11/18 07:16	1
2-Fluorobiphenyl	102		44 - 121	05/10/18 07:05	05/11/18 07:16	1
2,4,6-Tribromophenol	67		25 - 139	05/10/18 07:05	05/11/18 07:16	1
Terphenyl-d14	109		35 - 160	05/10/18 07:05	05/11/18 07:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Arsenic	1.7		0.59	0.20	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Barium	43	B	0.59	0.067	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Beryllium	0.44		0.23	0.055	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Boron	3.0		2.9	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Cadmium	0.17	B	0.12	0.021	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Calcium	7800	B	12	2.0	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Chromium	14		0.59	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Cobalt	4.2		0.29	0.077	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Copper	5.9	B	0.59	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Iron	12000		12	6.1	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Lead	7.4		0.29	0.14	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Magnesium	5000		5.9	2.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Manganese	170		0.59	0.085	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Nickel	10		0.59	0.17	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Potassium	690		29	10	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Selenium	<0.59		0.59	0.34	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Silver	0.20	J	0.29	0.076	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Sodium	270		59	8.7	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Vanadium	26		0.29	0.069	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1
Zinc	32	B	1.2	0.51	mg/Kg	☼	05/08/18 17:18	05/10/18 06:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:44	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Client Sample ID: 2273V-06-B01 (0-3)

Lab Sample ID: 500-144861-20

Date Collected: 05/03/18 12:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:44	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:44	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:44	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:44	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:44	1
Manganese	0.20		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:44	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:44	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:44	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:44	1
Zinc	<0.50		0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:44	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.37		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:42	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:42	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.017	0.0057	mg/Kg	☼	05/11/18 20:29	05/14/18 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU			05/10/18 18:06	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-5

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Report To (optional)
 Contact: D Trebant
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-144861
 Chain of Custody Number: _____
 Page 3 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key			
<u>EFE</u>		<u>10093410041.02</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other			
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		Parameter											
<u>FAP 525 (MS 20)</u>		<u>Metamory Co, IL</u>				<u>E Fisher</u>		<u>R Wright</u>		<u>VOCS</u>		<u>SVOCS</u>		<u>TURBIDITY</u>		<u>Total Metals</u>		<u>% Solids</u>		<u>pH</u>	
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix											Comments			
		Date	Time																		
<u>20</u>		<u>2273V-06-B01(10-3)</u>		<u>5/3/18</u>	<u>1235</u>	<u>2</u>	<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>										

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>EFE</u>	Date <u>5/3/18</u>	Time <u>1545</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1545</u>
Relinquished By <u>P. Neal</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1740</u>	Received By <u>[Signature]</u>	Company <u>TA-CHE</u>	Date <u>5/4/18</u>	Time <u>0715</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WL - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-5

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

18119 Beck Road (ISGS #3696-37)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.2041 Longitude: -88.55433
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-08-B01 through 2273V-08-B03 were sampled within the construction zone adjacent to ISGS #3696-37 (2273V-8) Farmstead . Refer to PSI Report for ISGS #3696-37 (2273V-8) Farmstead including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J144861-2.

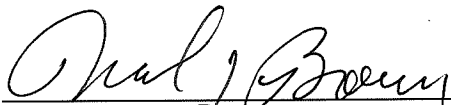
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

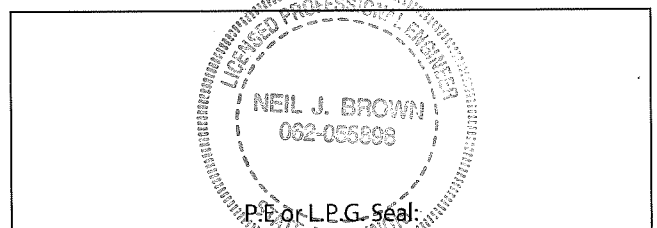
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name: _____


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-37 (Farmstead)				Comparison Criteria					
	2273V-08-B01		2273V-08-B02	2273V-08-B03	MACs			TACO		
BORING	2273V-08-B01		2273V-08-B02	2273V-08-B03	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2273V-08-B01 (0-7)	2273V-08-B01 (0-7)D	2273V-08-B02 (0-3)	2273V-08-B03 (0-3)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-7	0-7	0-3	0-3						
pH	8.2	8.3	8.4	7.6						
PID	--	--	--	--						
VOCs (mg/kg)										
Acetone	0.011 J	0.016	ND U	ND U	25	--	--	70,000	100,000	--
SVOCs (mg/kg)										
Benzo(a)anthracene	ND U	ND U	0.028 J	0.014 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	ND U	0.037	0.013 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	ND U	0.065	0.021 J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	ND U	0.018 J	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	ND U	0.022 J	ND U	9	--	--	9	1,700	--
Chrysene	ND U	ND U	0.035 J	0.015 J	88	--	--	88	17,000	--
Fluoranthene	ND U	ND U	0.072	0.029 J	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	ND U	0.016 J	ND U	0.9	1.6	0.9	1.6	170	--
Phenanthrene	ND U	ND U	0.028 J	0.014 J	--	--	--	--	--	--
Pyrene	ND U	ND U	0.061	0.025 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Antimony	0.27 J	0.33 J	0.38 J	0.28 J	5	--	--	31	82	--
Arsenic	1.8	2.2	2.5	3.2	11.3	13	--	13	61	--
Barium	22	18	29	61	1,500	--	--	5,500	14,000	--
Beryllium	0.38	0.33	0.32	0.52	22	--	--	160	410	--
Boron	6.8	5.9	3.5	3.6	40	--	--	16,000	41,000	--
Calcium	110,000	100,000	51,000	13,000	--	--	--	--	--	--
Chromium	8.8	8.1	9.3	15	21	--	--	230	690	--
Cobalt	4.3	3.7	3.8	5.1	20	--	--	4,700	12,000	--
Copper	10	9.7	7.2	12	2,900	--	--	2,900	8,200	--
Iron	8,400	7,600	8,800	12,000	15,000	15,900	--	--	--	--
Lead	3.6	3.6	13	23	107	--	--	400	700	--
Magnesium	38,000	39,000	22,000	8,700	325,000	--	--	--	730,000	--
Manganese	180	170	210	220	630	636	--	1,600	4,100	--
Mercury	ND U	ND U	0.025	0.029	0.89	--	--	10	0.1	--
Nickel	10	8.9	9.4	13	100	--	--	1,600	4,100	--
Potassium	1,200	1,000	650	930	--	--	--	--	--	--
Selenium	ND U	ND U	0.41 J	0.42 J	1.3	--	--	390	1,000	--
Silver	0.16 J	ND U	0.11 J	0.23 J	4.4	--	--	390	1,000	--
Sodium	160	150	450	250	--	--	--	--	--	--
Vanadium	16	14	20	28	550	--	--	550	1,400	--
Zinc	19	17	36	56	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.26 J	0.25 J	0.29 J	0.44 J	--	--	--	--	--	2
Boron	ND U	ND U	0.066 J	0.12 J	--	--	--	--	--	2
Cadmium	ND U	ND U	0.0021 J	ND U	--	--	--	--	--	0.005
Manganese	0.62 L	0.54 L	0.64 L	0.36 L	--	--	--	--	--	0.15
Zinc	0.067 J	0.027 J	0.095 J	0.12 J	--	--	--	--	--	5
SPLP Metals (mg/L)										
Manganese	0.054	0.054	0.34 L	0.12	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
5/17/2018 5:19:37 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Job ID: 500-144861-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144861-2

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base and / or acid surrogate outside acceptance limits: 2273V-08-B01 (0-7) (500-144861-6), and 2273V-08-B01 (0-7)D (500-144861-7). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

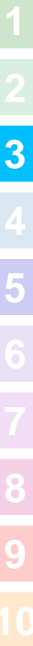
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B03 (0-3)

Lab Sample ID: 500-144861-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.014	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.029	J	0.038	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.038	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.014	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.015	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.013	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.28	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.2		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	61	B	0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	3.6		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.29	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	13000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.1		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	12	B	0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8700		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	220		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	930		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J	0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	250		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	28		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	56	B	1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-08-B02 (0-3)

Lab Sample ID: 500-144861-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.028	J	0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.072		0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.061		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.028	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.035	J	0.036	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.065		0.036	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.022	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.037		0.036	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.016	J	0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.38	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B02 (0-3) (Continued)

Lab Sample ID: 500-144861-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.5		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	29	B	0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	3.5		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Chromium	9.3		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.8		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	7.2	B	0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8800		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	210		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.4		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	650		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.28	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	450		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	36	B	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.066	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.64		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.095	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-08-B01 (0-7)

Lab Sample ID: 500-144861-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011	J	0.014	0.0063	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.27	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.8		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	22	B	0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	6.8		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.8		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	10	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8400		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	3.6		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	38000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	180		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Silver	0.16	J	0.27	0.069	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7) (Continued)

Lab Sample ID: 500-144861-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	160		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	19	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.62		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.067	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.054		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-08-B01 (0-7)D

Lab Sample ID: 500-144861-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016		0.015	0.0066	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.33	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.2		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	18	B	0.52	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.21	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	5.9		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000	B	100	17	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.1		0.52	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	9.7	B	0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	7600		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	3.6		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	170		0.52	0.075	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.9		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	150		52	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	17	B	1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.54		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.054		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-4	2273V-08-B03 (0-3)	Solid	05/03/18 13:00	05/03/18 17:40
500-144861-5	2273V-08-B02 (0-3)	Solid	05/03/18 13:10	05/03/18 17:40
500-144861-6	2273V-08-B01 (0-7)	Solid	05/03/18 13:25	05/03/18 17:40
500-144861-7	2273V-08-B01 (0-7)D	Solid	05/03/18 13:25	05/03/18 17:40

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B03 (0-3)

Lab Sample ID: 500-144861-4

Date Collected: 05/03/18 13:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.010	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Benzene	<0.0023		0.0023	0.00060	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Bromodichloromethane	<0.0023		0.0023	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Bromoform	<0.0023		0.0023	0.00069	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Bromomethane	<0.0059		0.0059	0.0022	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
2-Butanone (MEK)	<0.0059		0.0059	0.0026	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Carbon disulfide	<0.0059		0.0059	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Carbon tetrachloride	<0.0023		0.0023	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Chlorobenzene	<0.0023		0.0023	0.00087	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Chloroethane	<0.0059		0.0059	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Chloroform	<0.0023		0.0023	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Chloromethane	<0.0059		0.0059	0.0024	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00066	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00071	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Dibromochloromethane	<0.0023		0.0023	0.00077	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,1-Dichloroethane	<0.0023		0.0023	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,2-Dichloroethane	<0.0059		0.0059	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,1-Dichloroethene	<0.0023		0.0023	0.00081	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,2-Dichloropropane	<0.0023		0.0023	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,3-Dichloropropene, Total	<0.0023		0.0023	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
2-Hexanone	<0.0059		0.0059	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Methylene Chloride	<0.0059		0.0059	0.0023	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
4-Methyl-2-pentanone (MIBK)	<0.0059		0.0059	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00069	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Styrene	<0.0023		0.0023	0.00071	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,1,2,2-Tetrachloroethane	<0.0023		0.0023	0.00075	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Tetrachloroethene	<0.0023		0.0023	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Toluene	<0.0023		0.0023	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Trichloroethene	<0.0023		0.0023	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Vinyl acetate	<0.0059		0.0059	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1
Xylenes, Total	<0.0047		0.0047	0.00075	mg/Kg	☼	05/04/18 18:15	05/14/18 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		75 - 131	05/04/18 18:15	05/14/18 14:27	1
Dibromofluoromethane	107		75 - 126	05/04/18 18:15	05/14/18 14:27	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	05/04/18 18:15	05/14/18 14:27	1
Toluene-d8 (Surr)	111		75 - 124	05/04/18 18:15	05/14/18 14:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B03 (0-3)

Lab Sample ID: 500-144861-4

Date Collected: 05/03/18 13:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Phenanthrene	0.014	J	0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Fluoranthene	0.029	J	0.038	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Pyrene	0.025	J	0.038	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Benzo[a]anthracene	0.014	J	0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B03 (0-3)

Lab Sample ID: 500-144861-4

Date Collected: 05/03/18 13:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.015	J	0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Benzo[b]fluoranthene	0.021	J	0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Benzo[a]pyrene	0.013	J	0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	125		46 - 133	05/10/18 07:05	05/11/18 01:52	1
Phenol-d5	117		46 - 125	05/10/18 07:05	05/11/18 01:52	1
Nitrobenzene-d5	106		41 - 120	05/10/18 07:05	05/11/18 01:52	1
2-Fluorobiphenyl	115		44 - 121	05/10/18 07:05	05/11/18 01:52	1
2,4,6-Tribromophenol	77		25 - 139	05/10/18 07:05	05/11/18 01:52	1
Terphenyl-d14	124		35 - 160	05/10/18 07:05	05/11/18 01:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	1.2	0.24	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Arsenic	3.2		0.61	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Barium	61	B	0.61	0.069	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Beryllium	0.52		0.24	0.057	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Boron	3.6		3.0	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Cadmium	0.29	B	0.12	0.022	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Calcium	13000	B	12	2.1	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Chromium	15		0.61	0.30	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Cobalt	5.1		0.30	0.079	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Copper	12	B	0.61	0.17	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Iron	12000		12	6.3	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Lead	23		0.30	0.14	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Magnesium	8700		6.1	3.0	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Manganese	220		0.61	0.088	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Nickel	13		0.61	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Potassium	930		30	11	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Selenium	0.42	J	0.61	0.36	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Silver	0.23	J	0.30	0.078	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Sodium	250		61	9.0	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Vanadium	28		0.30	0.071	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1
Zinc	56	B	1.2	0.53	mg/Kg	☼	05/08/18 17:18	05/10/18 05:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.44	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:39	1
Boron	0.12	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:39	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B03 (0-3)

Lab Sample ID: 500-144861-4

Date Collected: 05/03/18 13:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:39	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:39	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:39	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:39	1
Manganese	0.36		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:39	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:39	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:39	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:39	1
Zinc	0.12	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:39	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.12		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 02:39	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:37	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.019	0.0062	mg/Kg	☼	05/11/18 20:29	05/14/18 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.20	0.20	SU			05/10/18 16:46	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B02 (0-3)

Lab Sample ID: 500-144861-5

Date Collected: 05/03/18 13:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 14:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/04/18 18:15	05/14/18 14:57	1
Dibromofluoromethane	102		75 - 126	05/04/18 18:15	05/14/18 14:57	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	05/04/18 18:15	05/14/18 14:57	1
Toluene-d8 (Surr)	111		75 - 124	05/04/18 18:15	05/14/18 14:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B02 (0-3)

Lab Sample ID: 500-144861-5

Date Collected: 05/03/18 13:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2-Nitrophenol	<0.36		0.36	0.084	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Phenanthrene	0.028	J	0.036	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Fluoranthene	0.072		0.036	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Pyrene	0.061		0.036	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Benzo[a]anthracene	0.028	J	0.036	0.0048	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B02 (0-3)

Lab Sample ID: 500-144861-5

Date Collected: 05/03/18 13:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.035	J	0.036	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Benzo[b]fluoranthene	0.065		0.036	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Benzo[k]fluoranthene	0.022	J	0.036	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Benzo[a]pyrene	0.037		0.036	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Indeno[1,2,3-cd]pyrene	0.016	J	0.036	0.0093	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 07:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133	05/10/18 07:05	05/11/18 07:41	1
Phenol-d5	115		46 - 125	05/10/18 07:05	05/11/18 07:41	1
Nitrobenzene-d5	103		41 - 120	05/10/18 07:05	05/11/18 07:41	1
2-Fluorobiphenyl	114		44 - 121	05/10/18 07:05	05/11/18 07:41	1
2,4,6-Tribromophenol	86		25 - 139	05/10/18 07:05	05/11/18 07:41	1
Terphenyl-d14	130		35 - 160	05/10/18 07:05	05/11/18 07:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.38	J	1.1	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Arsenic	2.5		0.55	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Barium	29	B	0.55	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Beryllium	0.32		0.22	0.051	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Boron	3.5		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Cadmium	0.21	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Calcium	51000	B	110	19	mg/Kg	☼	05/08/18 17:18	05/11/18 02:06	10
Chromium	9.3		0.55	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Cobalt	3.8		0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Copper	7.2	B	0.55	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Iron	8800		11	5.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Lead	13		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Magnesium	22000		5.5	2.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Manganese	210		0.55	0.080	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Nickel	9.4		0.55	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Potassium	650		28	9.8	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Selenium	0.41	J	0.55	0.32	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Silver	0.11	J	0.28	0.071	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Sodium	450		55	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Vanadium	20		0.28	0.065	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1
Zinc	36	B	1.1	0.48	mg/Kg	☼	05/08/18 17:18	05/10/18 05:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:43	1
Boron	0.066	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B02 (0-3)

Lab Sample ID: 500-144861-5

Date Collected: 05/03/18 13:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 89.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Iron	<0.40		0.40	0.20	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Manganese	0.64		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Silver	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:43	1
Zinc	0.095	J	0.50	0.020	mg/L	-	05/10/18 14:34	05/11/18 13:43	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.34		0.025	0.010	mg/L	-	05/09/18 16:33	05/11/18 02:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/10/18 14:34	05/14/18 15:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/10/18 14:34	05/14/18 15:41	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/10/18 12:15	05/11/18 12:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.019	0.0062	mg/Kg	☼	05/11/18 20:29	05/14/18 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.20	0.20	SU	-		05/10/18 16:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)

Lab Sample ID: 500-144861-6

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011	J	0.014	0.0063	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Benzene	<0.0014		0.0014	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Bromoform	<0.0014		0.0014	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Carbon disulfide	<0.0036		0.0036	0.00075	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Carbon tetrachloride	<0.0014		0.0014	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Chlorobenzene	<0.0014		0.0014	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Chloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Chloroform	<0.0014		0.0014	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Chloromethane	<0.0036		0.0036	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Dibromochloromethane	<0.0014		0.0014	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,1-Dichloroethane	<0.0014		0.0014	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,1-Dichloroethene	<0.0014		0.0014	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,3-Dichloropropane, Total	<0.0014		0.0014	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Ethylbenzene	<0.0014		0.0014	0.00069	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Styrene	<0.0014		0.0014	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Tetrachloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Toluene	<0.0014		0.0014	0.00036	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,1,1-Trichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Trichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Vinyl acetate	<0.0036		0.0036	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Vinyl chloride	<0.0014		0.0014	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1
Xylenes, Total	<0.0029		0.0029	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	05/04/18 18:15	05/14/18 15:26	1
Dibromofluoromethane	106		75 - 126	05/04/18 18:15	05/14/18 15:26	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	05/04/18 18:15	05/14/18 15:26	1
Toluene-d8 (Surr)	99		75 - 124	05/04/18 18:15	05/14/18 15:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)

Lab Sample ID: 500-144861-6

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Phenanthrene	<0.037		0.037	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Fluoranthene	<0.037		0.037	0.0068	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Pyrene	<0.037		0.037	0.0073	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)

Lab Sample ID: 500-144861-6

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Benzo[b]fluoranthene	<0.037		0.037	0.0079	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Benzo[a]pyrene	<0.037		0.037	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0095	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 02:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/10/18 07:05	05/11/18 02:16	1
Phenol-d5	125		46 - 125	05/10/18 07:05	05/11/18 02:16	1
Nitrobenzene-d5	109		41 - 120	05/10/18 07:05	05/11/18 02:16	1
2-Fluorobiphenyl	119		44 - 121	05/10/18 07:05	05/11/18 02:16	1
2,4,6-Tribromophenol	81		25 - 139	05/10/18 07:05	05/11/18 02:16	1
Terphenyl-d14	127		35 - 160	05/10/18 07:05	05/11/18 02:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.1	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Arsenic	1.8		0.54	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Barium	22	B	0.54	0.061	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Beryllium	0.38		0.21	0.050	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Boron	6.8		2.7	0.25	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Cadmium	0.12	B	0.11	0.019	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Calcium	110000	B	110	18	mg/Kg	☼	05/08/18 17:18	05/11/18 02:10	10
Chromium	8.8		0.54	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Cobalt	4.3		0.27	0.070	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Copper	10	B	0.54	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Iron	8400		11	5.6	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Lead	3.6		0.27	0.12	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Magnesium	38000		5.4	2.7	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Manganese	180		0.54	0.078	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Nickel	10		0.54	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Potassium	1200		27	9.5	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Silver	0.16	J	0.27	0.069	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Sodium	160		54	7.9	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Vanadium	16		0.27	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1
Zinc	19	B	1.1	0.47	mg/Kg	☼	05/08/18 17:18	05/10/18 05:49	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:47	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)

Lab Sample ID: 500-144861-6

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:47	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:47	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:47	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:47	1
Manganese	0.62		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:47	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:47	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:47	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:47	1
Zinc	0.067	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:47	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.054		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 02:47	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:44	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:44	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0059	mg/Kg	☼	05/11/18 20:29	05/14/18 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/10/18 16:56	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)D

Lab Sample ID: 500-144861-7

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.016		0.015	0.0066	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Carbon disulfide	<0.0038		0.0038	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Vinyl acetate	<0.0038		0.0038	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Vinyl chloride	<0.0015		0.0015	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131		75 - 131	05/04/18 18:15	05/14/18 15:56	1
Dibromofluoromethane	101		75 - 126	05/04/18 18:15	05/14/18 15:56	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	05/04/18 18:15	05/14/18 15:56	1
Toluene-d8 (Surr)	109		75 - 124	05/04/18 18:15	05/14/18 15:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)D

Lab Sample ID: 500-144861-7

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)D

Lab Sample ID: 500-144861-7

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/10/18 07:05	05/11/18 02:41	1
Phenol-d5	122		46 - 125	05/10/18 07:05	05/11/18 02:41	1
Nitrobenzene-d5	108		41 - 120	05/10/18 07:05	05/11/18 02:41	1
2-Fluorobiphenyl	116		44 - 121	05/10/18 07:05	05/11/18 02:41	1
2,4,6-Tribromophenol	86		25 - 139	05/10/18 07:05	05/11/18 02:41	1
Terphenyl-d14	126		35 - 160	05/10/18 07:05	05/11/18 02:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	1.0	0.20	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Arsenic	2.2		0.52	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Barium	18	B	0.52	0.059	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Beryllium	0.33		0.21	0.048	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Boron	5.9		2.6	0.24	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Cadmium	0.11	B	0.10	0.019	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Calcium	100000	B	100	17	mg/Kg	☼	05/08/18 17:18	05/11/18 02:14	10
Chromium	8.1		0.52	0.25	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Cobalt	3.7		0.26	0.067	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Copper	9.7	B	0.52	0.14	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Iron	7600		10	5.4	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Lead	3.6		0.26	0.12	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Magnesium	39000		5.2	2.6	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Manganese	170		0.52	0.075	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Nickel	8.9		0.52	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Potassium	1000		26	9.1	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Selenium	<0.52		0.52	0.30	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Silver	<0.26		0.26	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Sodium	150		52	7.6	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Vanadium	14		0.26	0.061	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1
Zinc	17	B	1.0	0.45	mg/Kg	☼	05/08/18 17:18	05/10/18 05:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:51	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Client Sample ID: 2273V-08-B01 (0-7)D

Lab Sample ID: 500-144861-7

Date Collected: 05/03/18 13:25

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 88.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 13:51	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:51	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:51	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 13:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 13:51	1
Manganese	0.54		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:51	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:51	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 13:51	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 13:51	1
Zinc	0.027	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 13:51	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.054		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 02:51	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 15:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 15:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0059	mg/Kg	☼	05/11/18 20:29	05/14/18 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/10/18 17:07	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D Trilant
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144861
 Chain of Custody Number: _____
 Page 2 of 2
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
<u>EFE</u>		<u>1009341.0041.02</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Lab PM													
<u>FAP 525 (MS 20)</u>		<u>McHenry Co, IL</u>				<u>R Wright</u>													
Sampler																			
<u>E Fisher</u>																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	TRP/SPRP	Total Metals	SP/MS/MSD	H ₂ O							Comments
			Date	Time															
<u>4</u>		<u>2273V-08-B03(0-3)</u>	<u>5/3/18</u>	<u>1300</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>5</u>		<u>2273V-08-B02(0-3)</u>		<u>1310</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>6</u>		<u>2273V-08-B01(0-7)</u>		<u>1325</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>7</u>		<u>2273V-08-B01(0-7)D</u>		<u>1325</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>R. Ned</u>	Company <u>EFE</u>	Date <u>5/3/18</u>	Time <u>1545</u>	Received By <u>R. Ned</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1545</u>
Relinquished By <u>R. Ned</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1740</u>	Received By <u>R. Ned</u>	Company <u>TA-ORT</u>	Date <u>5/4/18</u>	Time <u>0715</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-2

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8500 block of S. Grant Highway (ISGS #3696-38)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20428 Longitude: -88.55136
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-02-B05, 2273V-11-B02 and 2273V-10-B03 were sampled within the construction zone adjacent to ISGS #3696-38 ROW. Refer to PSI Report for ISGS #3696-38 ROW including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages J145111-1, J145367-2 and J144861-3.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

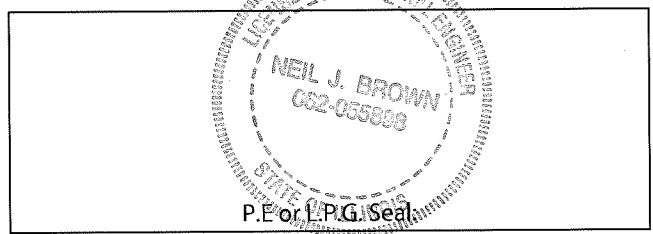
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name: _____

Neil J. Brown
Licensed Professional Engineer or
Licensed Professional Geologist Signature: _____

1/27/2020
Date: _____



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.

r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN

SITE	ISGS #3696-38 (ROW)				Comparison Criteria					
	2273V-02-B05		2273V-10-B03	2273V-11-B02	MACs			TACO		
BORING	2273V-02-B05 (0-6)		2273V-10-B03 (0-4)	2273V-11-B02 (0-6)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil	Soil						
MATRIX										
DEPTH (feet)	0-6	0-6	0-4	0-6						
pH	8.3	8.2	8.2	8.5						
PID	--	--	--	--						
VOCs (None Detected)										
SVOCs (mg/kg)										
Acenaphthylene	ND U	ND U	0.008 J	ND U	--	--	--	--	--	--
Benzo(a)anthracene	0.0049 J	ND U	0.02 J	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	ND U	0.026 J	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	ND U	0.043	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND U	ND U	0.015 J	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	ND U	0.015 J	ND U	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	0.44	ND U	46	--	--	46	4,100	--
Chrysene	ND U	ND U	0.026 J	ND U	88	--	--	88	17,000	--
Fluoranthene	ND U	ND U	0.039	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND U	ND U	0.012 J	ND U	0.9	1.6	0.9	1.6	170	--
Phenanthrene	ND U	ND U	0.015 J	ND U	--	--	--	--	--	--
Pyrene	ND U	ND U	0.036 J	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)										
Antimony	0.35 J	ND U	0.31 J	ND U	5	--	--	31	82	--
Arsenic	2.1	2.3	2.3	4.1	11.3	13	--	13	61	--
Barium	28	19	44	46	1,500	--	--	5,500	14,000	--
Beryllium	0.32	0.32	0.34	0.5	22	--	--	160	410	--
Boron	ND U	ND U	3.2	6.1	40	--	--	16,000	41,000	--
Calcium	48,000	48,000	31,000	49,000	--	--	--	--	--	--
Chromium	9.4	8.2	10	14	21	--	--	230	690	--
Cobalt	3.3	3.5	4.3	8.3	20	--	--	4,700	12,000	--
Copper	5.6	5.8	11	13	2,900	--	--	2,900	8,200	--
Iron	9,100	8,800	9,000	16,000 ^{fm}	15,000	15,900	--	--	--	--
Lead	4.8	3.7	17	8.3	107	--	--	400	700	--
Magnesium	22,000	24,000	20,000	23,000	325,000	--	--	--	730,000	--
Manganese	180	160	280	470	630	636	--	1,600	4,100	--
Mercury	0.013 J	0.012 J	0.016 J	0.023	0.89	--	--	10	0.1	--
Nickel	7.6	7.5	8.1	19	100	--	--	1,600	4,100	--
Potassium	440	380	630	1,300	--	--	--	--	--	--
Selenium	ND U	ND U	0.92	ND U	1.3	--	--	390	1,000	--
Silver	0.074 J	ND U	0.14 J	0.2 J	4.4	--	--	390	1,000	--
Sodium	110	120	1,400	280	--	--	--	--	--	--
Vanadium	20	20	20	36	550	--	--	550	1,400	--
Zinc	17	15	50	30	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)										
Barium	0.29 J	0.25 J	0.3 J	0.3 J	--	--	--	--	--	2
Boron	ND U	ND U	0.054 J	ND U	--	--	--	--	--	2
Cadmium	ND U	ND U	0.003 J	ND U	--	--	--	--	--	0.005
Iron	ND U	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	0.093	0.43 L	0.54 L	0.2 L	--	--	--	--	--	0.15
Zinc	ND U	ND U	0.074 J	ND U	--	--	--	--	--	5
SPLP Metals (mg/L)										
Manganese	NA	0.28 L	1.1 L	0.32 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-3
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout

Jodie Bracken

Authorized for release by:
5/17/2018 5:22:14 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Job ID: 500-144861-3

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-144861-3**

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following samples was outside the upper control limit: 2273V-10-B06 (0-6) (500-144861-8). This sample did not contain any target analytes; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained two acid surrogates outside acceptance limits: 2273V-10-B06 (0-6) (500-144861-8). The sample did not have any target hits associated with the acid surrogates; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The following samples contained one base and / or acid surrogate outside acceptance limits: 2273V-10-B02 (0-6) (500-144861-10), 2273V-10-B04 (0-5) (500-144861-12) and 2273V-10-B01 (0-6) (500-144861-15). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 500-430916 recovered outside control limits for several analytes. These analytes were biased high in the LCS/LCSD and were not detected above the reporting limit in the associated sample; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-431902 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: 2273V-10-B01 (0-6) (500-144861-15).

Method(s) 6020A: The initial low level continuing calibration verification (ICVL) associated with batch 500-431132 recovered above the upper control limit for Beryllium. The bracketing CCVL were within control limits. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3



Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.0080	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.015	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.039		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.036	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.020	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.026	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA	
Bis(2-ethylhexyl) phthalate	0.44		0.19	0.070	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.043		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.015	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.026	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.012	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.015	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.31	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	2.3		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA	
Barium	44	B	0.56	0.063	mg/Kg	1	☼	6010B	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4) (Continued)

Lab Sample ID: 500-144861-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.34		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	3.2		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	31000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	280		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.1		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	630		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.92		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	50	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.054	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.54		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.074	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-9	2273V-10-B03 (0-4)	Solid	05/03/18 09:50	05/03/18 17:40

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
2-Butanone (MEK)	<0.0039		0.0039	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Xylenes, Total	<0.0032		0.0032	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/04/18 18:15	05/14/18 16:54	1
Dibromofluoromethane	117		75 - 126	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/04/18 18:15	05/14/18 16:54	1
Toluene-d8 (Surr)	109		75 - 124	05/04/18 18:15	05/14/18 16:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Acenaphthylene	0.0080	J	0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Phenanthrene	0.015	J	0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Fluoranthene	0.039		0.038	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Pyrene	0.036	J	0.038	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[a]anthracene	0.020	J	0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.026	J	0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-ethylhexyl) phthalate	0.44		0.19	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[b]fluoranthene	0.043		0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[k]fluoranthene	0.015	J	0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[a]pyrene	0.026	J	0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[g,h,i]perylene	0.015	J	0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		46 - 133	05/10/18 07:05	05/11/18 03:31	1
Phenol-d5	120		46 - 125	05/10/18 07:05	05/11/18 03:31	1
Nitrobenzene-d5	104		41 - 120	05/10/18 07:05	05/11/18 03:31	1
2-Fluorobiphenyl	113		44 - 121	05/10/18 07:05	05/11/18 03:31	1
2,4,6-Tribromophenol	86		25 - 139	05/10/18 07:05	05/11/18 03:31	1
Terphenyl-d14	123		35 - 160	05/10/18 07:05	05/11/18 03:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Arsenic	2.3		0.56	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Barium	44	B	0.56	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Beryllium	0.34		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Boron	3.2		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Cadmium	0.27	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Calcium	31000	B	11	1.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Chromium	10		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Cobalt	4.3		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Copper	11	B	0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Iron	9000		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Lead	17		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Magnesium	20000		5.6	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Manganese	280		0.56	0.081	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Nickel	8.1		0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Potassium	630		28	9.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Selenium	0.92		0.56	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Silver	0.14	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Sodium	1400		56	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Vanadium	20		0.28	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Zinc	50	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:00	1
Boron	0.054	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Iron	<0.40		0.40	0.20	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Manganese	0.54		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Silver	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Zinc	0.074	J	0.50	0.020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L	-	05/09/18 16:33	05/11/18 02:59	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/10/18 14:34	05/14/18 16:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/10/18 14:34	05/14/18 16:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/10/18 12:15	05/11/18 12:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.019	0.0064	mg/Kg	☼	05/11/18 20:29	05/14/18 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU	-		05/10/18 17:18	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D. Trebust
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144861
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
<u>EFE</u>		<u>1009341.0041.02</u>				<u>VOCs</u>		<u>SVOCS</u>					
Project Name		Lab Project #											
<u>FAP 525 (WS 20)</u>													
Project Location/State		Lab PM											
<u>McHenry Co, IL</u>		<u>R Wright</u>											
Sampler													
<u>R Fehr</u>													
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCS	TLPL/SPLP	total Metals	H2SO4/a	pH	Preservative Key
			Date	Time									
<u>8</u>		<u>2273V-10-B06(0-6)</u>	<u>5/3/18</u>	<u>0935</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<u>9</u>		<u>2273V-10-B03(0-4)</u>		<u>0950</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<u>10</u>		<u>2273V-10-B02(0-6)</u>		<u>1000</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<u>11</u>		<u>2273V-10-B05(0-6)</u>		<u>1020</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<u>12</u>		<u>2273V-10-B04(0-5)</u>		<u>1040</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<u>13</u>		<u>2273V-10-G04</u>		<u>1055</u>	<u>6 W</u>		<u>X</u>	<u>X</u>	<u>X</u>				
<u>14</u>		<u>2273V-00-TB1</u>	<u>4/27/18</u>	<u>-</u>	<u>2 W</u>		<u>X</u>						
<u>15</u>		<u>2273V-10-B01(0-6)</u>	<u>5/3/18</u>	<u>1510</u>	<u>2 S</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company: <u>EFE</u> Date: <u>5/3/18</u> Time: <u>1545</u>	Received By <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/3/18</u> Time: <u>1545</u>	Lab Courier <u>[Signature]</u>
Relinquished By <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/3/18</u> Time: <u>1740</u>	Received By <u>[Signature]</u> Company: <u>TA-CHL</u> Date: <u>5/4/18</u> Time: <u>0715</u>	Shipped _____
Relinquished By _____ Company: _____ Date: _____ Time: _____	Received By _____ Company: _____ Date: _____ Time: _____	Hand Delivered _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-3

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145111-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/22/2018 4:04:18 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Job ID: 500-145111-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145111-1

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: One surrogate recovery for the following samples was outside the upper control limit: 2273V-11-B02 (0-6) (500-145111-2) and 2273V-11-B01 (0-6) (500-145111-3). The samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1



Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.1		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1	B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	49000	B	50	8.5	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.25	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	8.3		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	470		0.50	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		25	8.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		50	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	36		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	30		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6) (Continued)

Lab Sample ID: 500-145111-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.023		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago



Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145111-2	2273V-11-B02 (0-6)	Solid	05/08/18 10:23	05/08/18 17:45

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloroethane	<0.0048	*	0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Styrene	<0.0019	*	0.0019	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/09/18 09:07	05/16/18 16:12	1
Dibromofluoromethane	133	X	75 - 126	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/09/18 09:07	05/16/18 16:12	1
Toluene-d8 (Surr)	86		75 - 124	05/09/18 09:07	05/16/18 16:12	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
N-Nitrosodi-n-propylamine	<0.077	*	0.077	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Nitroaniline	<0.19	*	0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 12:17	1
Phenol-d5	105		46 - 125	05/15/18 07:06	05/16/18 12:17	1
Nitrobenzene-d5	94		41 - 120	05/15/18 07:06	05/16/18 12:17	1
2-Fluorobiphenyl	104		44 - 121	05/15/18 07:06	05/16/18 12:17	1
2,4,6-Tribromophenol	92		25 - 139	05/15/18 07:06	05/16/18 12:17	1
Terphenyl-d14	136		35 - 160	05/15/18 07:06	05/16/18 12:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Arsenic	4.1		0.50	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Barium	46		0.50	0.057	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Beryllium	0.50		0.20	0.047	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Boron	6.1	B	2.5	0.23	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Cadmium	0.18	B	0.10	0.018	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Calcium	49000	B	50	8.5	mg/Kg	☼	05/11/18 07:44	05/16/18 01:51	5
Chromium	14		0.50	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Cobalt	8.3		0.25	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Copper	13		0.50	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Iron	16000		10	5.2	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Lead	8.3		0.25	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Magnesium	23000		5.0	2.5	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Manganese	470		0.50	0.072	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Nickel	19		0.50	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Potassium	1300		25	8.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Selenium	<0.50		0.50	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Silver	0.20	J	0.25	0.064	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Sodium	280		50	7.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Vanadium	36		0.25	0.059	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Zinc	30		1.0	0.44	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:40	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:40	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:40	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:40	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:40	1
Manganese	0.20		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:40	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:40	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:40	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:40	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:40	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.32		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 05:05	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:51	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:51	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0062	mg/Kg	☼	05/16/18 16:45	05/17/18 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU			05/14/18 16:01	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____



Chain of Custody Record

Lab Job #: 500-145111
 Chain of Custody Number: _____
 Page 6 of 6
 Temperature °C of Cooler: (3.6)(2.4)

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
E+E		1009341.0041.02										
Project Name		Lab Project #		VOC		SVOC		Total/TCMP Metals		pH		
176-001-W041												
Project Location/State		Lab PM		Percent Solid								
Marengo, IL		D. Wright										
Sampler												
M.F., J.H.												
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative Key					
			Date	Time			1. HCL, Cool to 4°	2. H2SO4, Cool to 4°	3. HNO3, Cool to 4°	4. NaOH, Cool to 4°	5. NaOH/Zn, Cool to 4°	6. NaHSO4
1		2273V-11-B03 (O-6)	5/8	1005	5	S	X	X	X	X	X	
2		2273V-11-B02 (O-6)	5/8	1023	5	S	X	X	X	X	X	
3		2273V-11-B01 (O-6)	5/8	1010	5	S	X	X	X	X	X	

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <i>J. Hughes</i>	Company E+E	Date 5/8/18	Time 1530	Received By <i>P. Neal</i>	Company TA	Date 5/8/18	Time 1530	Lab Courier <input checked="" type="checkbox"/>
Relinquished By <i>P. Neal</i>	Company TA	Date 5/8/18	Time 1745	Received By <i>Frank</i>	Company TA	Date 05/08/18	Time 1745	Shipped <input type="checkbox"/>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered <input type="checkbox"/>

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-1

Login Number: 145111

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145367-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/25/2018 2:19:48 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Job ID: 500-145367-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145367-2

Receipt

The samples were received on 5/11/2018 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B03 (0-4) (500-145367-7), 2273V-02-B02 (0-4) (500-145367-8) and (MB 500-433188/1-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Two acid surrogate recoveries for the following sample were outside the upper control limit: 2273V-02-B01 (0-4) (500-145367-9). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Selenium above the reporting limit (RL). The sample 2273V-02-B05 (0-6) (500-145367-4), 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B04 (0-6) (500-145367-6), 2273V-02-B03 (0-4) (500-145367-7), 2273V-02-B02 (0-4) (500-145367-8) and 2273V-02-B01 (0-4) (500-145367-9) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

Method(s) 6010B: The method blank for preparation batch 500-432824 and analytical batch 500-433000 contained Zinc above the reporting limit (RL). Associated samples 2273V-02-B05 (0-6) (500-145367-4), 2273V-02-B05 (0-6)D (500-145367-5), 2273V-02-B04 (0-6) (500-145367-6), 2273V-02-B03 (0-4) (500-145367-7) and 2273V-02-B02 (0-4) (500-145367-8) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[a]anthracene	0.0049	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.35	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.1		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.20	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J B	2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000	B	51	8.7	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.4		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.3		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	5.6	B	0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	9100		10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	4.8		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	180	B	0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.6		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	440		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Silver	0.074	J	0.26	0.066	mg/Kg	1	☼	6010B	Total/NA
Sodium	110		51	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.26	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	17	B	1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.093		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.013	J	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	19		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.32		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	2.3	J B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000	B	50	8.5	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.2		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.5		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	5.8	B	0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	8800		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	3.7		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	160	B	0.50	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.5		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	380		25	8.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	120		50	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	15	B	1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D (Continued)

Lab Sample ID: 500-145367-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.012	J	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago



Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145367-4	2273V-02-B05 (0-6)	Solid	05/11/18 10:25	05/11/18 14:00
500-145367-5	2273V-02-B05 (0-6)D	Solid	05/11/18 10:25	05/11/18 14:00

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0097	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Benzene	<0.0022		0.0022	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromoform	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Bromomethane	<0.0056		0.0056	0.0021	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
2-Butanone (MEK)	<0.0056		0.0056	0.0025	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Carbon disulfide	<0.0056		0.0056	0.0012	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chlorobenzene	<0.0022		0.0022	0.00082	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloroethane	<0.0056		0.0056	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloroform	<0.0022		0.0022	0.00077	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Chloromethane	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00062	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Dibromochloromethane	<0.0022		0.0022	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1-Dichloroethane	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloroethane	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1-Dichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
2-Hexanone	<0.0056		0.0056	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Methylene Chloride	<0.0056		0.0056	0.0022	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00065	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Styrene	<0.0022		0.0022	0.00067	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Tetrachloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00098	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00078	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00095	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Trichloroethene	<0.0022		0.0022	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Vinyl acetate	<0.0056		0.0056	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Vinyl chloride	<0.0022		0.0022	0.00098	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1
Xylenes, Total	<0.0044		0.0044	0.00071	mg/Kg	☼	05/11/18 17:49	05/19/18 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/11/18 17:49	05/19/18 20:09	1
Dibromofluoromethane	85		75 - 126	05/11/18 17:49	05/19/18 20:09	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/11/18 17:49	05/19/18 20:09	1
Toluene-d8 (Surr)	92		75 - 124	05/11/18 17:49	05/19/18 20:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[a]anthracene	0.0049	J	0.035	0.0047	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0096	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	128		46 - 133	05/21/18 07:31	05/22/18 13:59	1
Phenol-d5	99		46 - 125	05/21/18 07:31	05/22/18 13:59	1
Nitrobenzene-d5	88		41 - 120	05/21/18 07:31	05/22/18 13:59	1
2-Fluorobiphenyl	95		44 - 121	05/21/18 07:31	05/22/18 13:59	1
2,4,6-Tribromophenol	117		25 - 139	05/21/18 07:31	05/22/18 13:59	1
Terphenyl-d14	104		35 - 160	05/21/18 07:31	05/22/18 13:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	J	1.0	0.20	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Arsenic	2.1		0.51	0.18	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Barium	28		0.51	0.058	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Beryllium	0.32		0.20	0.048	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Boron	2.4	J B	2.6	0.24	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Cadmium	0.14	B	0.10	0.018	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Calcium	48000	B	51	8.7	mg/Kg	☼	05/17/18 16:19	05/19/18 02:59	5
Chromium	9.4		0.51	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Cobalt	3.3		0.26	0.067	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Copper	5.6	B	0.51	0.14	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Iron	9100		10	5.3	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Lead	4.8		0.26	0.12	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Magnesium	22000		5.1	2.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Manganese	180	B	0.51	0.074	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Nickel	7.6		0.51	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Potassium	440		26	9.1	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Selenium	<0.51		0.51	0.30	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Silver	0.074	J	0.26	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Sodium	110		51	7.6	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Thallium	<0.51		0.51	0.26	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Vanadium	20		0.26	0.060	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1
Zinc	17	B	1.0	0.45	mg/Kg	☼	05/17/18 16:19	05/18/18 12:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:53	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)

Lab Sample ID: 500-145367-4

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 14:53	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Iron	<0.40		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 14:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 14:53	1
Manganese	0.093		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 14:53	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:53	1
Zinc	<0.50		0.50	0.020	mg/L		05/18/18 14:23	05/21/18 14:53	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:47	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/23/18 23:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.017	0.0056	mg/Kg	✱	05/23/18 09:12	05/24/18 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU			05/18/18 16:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	05/11/18 17:49	05/19/18 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/11/18 17:49	05/19/18 20:36	1
Dibromofluoromethane	87		75 - 126	05/11/18 17:49	05/19/18 20:36	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/11/18 17:49	05/19/18 20:36	1
Toluene-d8 (Surr)	89		75 - 124	05/11/18 17:49	05/19/18 20:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.079	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dimethylphenol	<0.35		0.35	0.14	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dichlorophenol	<0.35		0.35	0.085	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorocyclopentadiene	<0.72		0.72	0.20	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Phenanthrene	<0.035		0.035	0.0050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Anthracene	<0.035		0.035	0.0060	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Fluoranthene	<0.035		0.035	0.0066	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Pyrene	<0.035		0.035	0.0071	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0097	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[b]fluoranthene	<0.035		0.035	0.0077	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[a]pyrene	<0.035		0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/21/18 07:31	05/22/18 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	145	X	46 - 133	05/21/18 07:31	05/22/18 14:26	1
Phenol-d5	87		46 - 125	05/21/18 07:31	05/22/18 14:26	1
Nitrobenzene-d5	64		41 - 120	05/21/18 07:31	05/22/18 14:26	1
2-Fluorobiphenyl	82		44 - 121	05/21/18 07:31	05/22/18 14:26	1
2,4,6-Tribromophenol	104		25 - 139	05/21/18 07:31	05/22/18 14:26	1
Terphenyl-d14	106		35 - 160	05/21/18 07:31	05/22/18 14:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Arsenic	2.3		0.50	0.17	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Barium	19		0.50	0.057	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Beryllium	0.32		0.20	0.047	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Boron	2.3	J B	2.5	0.23	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Cadmium	0.12	B	0.10	0.018	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Calcium	48000	B	50	8.5	mg/Kg	☼	05/17/18 16:19	05/19/18 03:03	5
Chromium	8.2		0.50	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Cobalt	3.5		0.25	0.066	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Copper	5.8	B	0.50	0.14	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Iron	8800		10	5.2	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Lead	3.7		0.25	0.12	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Magnesium	24000		5.0	2.5	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Manganese	160	B	0.50	0.073	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Nickel	7.5		0.50	0.15	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Potassium	380		25	8.9	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Selenium	<0.50		0.50	0.30	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Sodium	120		50	7.4	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Vanadium	20		0.25	0.059	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1
Zinc	15	B	1.0	0.44	mg/Kg	☼	05/17/18 16:19	05/18/18 12:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/18/18 14:23	05/21/18 14:58	1
Boron	<0.50		0.50	0.050	mg/L		05/18/18 14:23	05/21/18 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Client Sample ID: 2273V-02-B05 (0-6)D

Lab Sample ID: 500-145367-5

Date Collected: 05/11/18 10:25

Matrix: Solid

Date Received: 05/11/18 14:00

Percent Solids: 91.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/18/18 14:23	05/21/18 14:58	1
Chromium	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Cobalt	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Iron	<0.40		0.40	0.20	mg/L		05/18/18 14:23	05/21/18 14:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/18/18 14:23	05/21/18 14:58	1
Manganese	0.43		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Nickel	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Selenium	<0.050		0.050	0.020	mg/L		05/18/18 14:23	05/21/18 14:58	1
Silver	<0.025		0.025	0.010	mg/L		05/18/18 14:23	05/21/18 14:58	1
Zinc	<0.50		0.50	0.020	mg/L		05/18/18 14:23	05/21/18 14:58	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.28		0.025	0.010	mg/L		05/18/18 14:25	05/21/18 19:43	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/18/18 14:23	05/21/18 15:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/18/18 14:23	05/21/18 15:50	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/21/18 14:15	05/24/18 00:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0056	mg/Kg	☼	05/23/18 09:12	05/24/18 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/18/18 16:29	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145367-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)	Bill To _____ (optional)
Contact: _____	Contact: _____
Company: _____	Company: _____
Address: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
E-Mail: _____	PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-145367

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 3.7

Client		Client Project #		Preservative		Parameter												Preservative Key	
E+E		1069341.0041.02																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
176-001-W041A																			
Project Location/State		Lab PM																	
Marengo, IL		R. Wright																	
Sampler																			
MF, JH																			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total/TCAP Metals	pH	Percent Solids							Comments	
4		2273V-02-B05(0-6)	5/11/18	1025	5	S	X	X	X	X	X								
5		2273V-02-B05(0-6)D	5/11/18	1025	5	S	X	X	X	X	X								
6		2273V-02-B04(0-6)	5/11/18	1033	5	S	X	X	X	X	X								
7		2273V-02-B03(0-4)	5/11/18	1116	5	S	X	X	X	X	X								
8		2273V-02-B02(0-4)	5/11/18	1120	5	S	X	X	X	X	X								
9		2273V-02-B01(0-4)	5/11/18	1130	5	S	X	X	X	X	X								

Turnaround Time Required (Business Days):
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date: _____

Sample Disposal:
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>E+E</u> Date: <u>5/11/18</u> Time: <u>1:30</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/11/18</u> Time: <u>1:30</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>5-11-18</u> Time: <u>1:40</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHE</u> Date: <u>5/11/18</u> Time: <u>1:40</u>	Shipped: _____
Relinquished By: _____	Received By: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145367-2

Login Number: 145367

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8524 S. Grant Highway (ISGS #3696-39)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20441 Longitude: -88.55082
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: 1110655048 BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-10-B01 through 2273V-10-B06 were sampled within the construction zone adjacent to ISGS #3696-39 (2273V-10) Vacant Land. Refer to PSI Report for ISGS #3696-39 (2273V-10) Vacant Land including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages J144861-3.

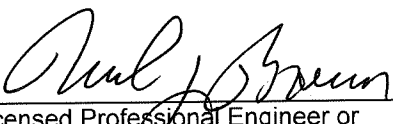
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

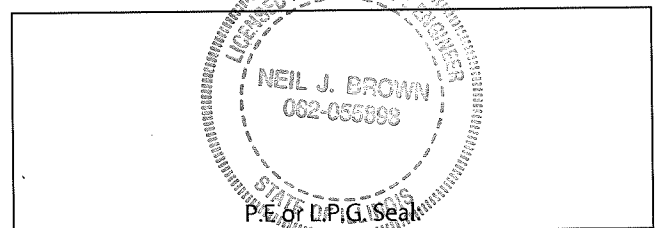
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN

SITE	ISGS #3696-39 (Vacant Land)							Comparison Criteria													
	2273V-10-B01		2273V-10-B02		2273V-10-B03		2273V-10-B04		2273V-10-B05		2273V-10-B06		MACs			TACO					
	2273V-10-B01 (0-6)		2273V-10-B02 (0-6)		2273V-10-B03 (0-4)		2273V-10-B04 (0-5)		2273V-10-G04		2273V-10-B05 (0-6)		2273V-10-B06 (0-6)		Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	Ground-water
Soil		Soil		Soil		Soil		Water		Soil		Soil									
0-6		0-6		0-4		0-5		5		0-6		0-6									
DEPTH (feet)	7.4		8.2		8.2		7.8		--		7.4		8								
pH	--		--		--		--		--		--		--								
PID	--		--		--		--		--		--		--								
VOCs (soil: mg/kg, water: mg/L)																					
Acetone	ND	U	0.03	ND	U	ND	U	0.0036	J	ND	U	0.0099	J	25	--	--	70,000	100,000	--	6.3	
SVOCs (soil: mg/kg, water: mg/L)																					
Acenaphthylene	ND	U	ND	U	0.008	J	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	--	
Benzo(a)anthracene	ND	U	0.0079	J	0.02	J	0.0059	J	ND	U	ND	U	ND	U	0.9	1.8	1.1	1.8	170	--	0.00013
Benzo(a)pyrene	ND	U	0.0075	J	0.026	J	ND	U	ND	U	ND	U	ND	U	0.09	2.1	1.3	2.1	17	--	0.0002
Benzo(b)fluoranthene	ND	U	0.013	J	0.043	0.014	J	ND	U	ND	U	ND	U	0.9	2.1	1.5	2.1	170	--	0.00018	
Benzo(g,h,i)perylene	ND	U	ND	U	0.015	J	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	--	--
Benzo(k)fluoranthene	ND	U	ND	U	0.015	J	ND	U	ND	U	ND	U	ND	U	9	--	--	9	1,700	--	0.00017
Bis(2-chloroethyl)ether	ND	U	ND	U	ND	U	ND	U	0.0034	ND	U	ND	U	0.66	--	--	0.2	0.66	--	0.01	
Bis(2-ethylhexyl) phthalate	ND	U	0.28	ND	U	0.44	ND	U	0.0016	J	0.22	ND	U	0.32	46	--	46	4,100	--	0.006	
Chrysene	ND	U	ND	U	0.026	J	ND	U	ND	U	ND	U	ND	U	88	--	--	88	17,000	--	0.0015
Diethyl phthalate	ND	U	ND	U	ND	U	ND	U	0.00071	J	ND	U	ND	U	470	--	--	2,000	2,000	--	5.6
Fluoranthene	ND	U	0.013	J	0.039	0.012	J	ND	U	ND	U	ND	U	3,100	--	--	3,100	82,000	--	0.28	
Indeno(1,2,3-cd)pyrene	ND	U	ND	U	0.012	J	ND	U	ND	U	ND	U	ND	U	0.9	1.6	0.9	1.6	170	--	0.00043
Phenanthrene	ND	U	0.0068	J	0.015	J	ND	U	ND	U	ND	U	ND	U	--	--	--	--	--	--	--
Pyrene	ND	U	0.011	J	0.036	J	0.01	J	ND	U	ND	U	ND	U	2,300	--	--	2,300	61,000	--	0.21
Inorganics (soil: mg/kg, water: mg/L)																					
Antimony	0.44	J	ND	U	0.31	J	0.28	J	ND	U	ND	U	0.39	J	5	--	--	31	82	--	0.006
Arsenic	2	2.4	2.3	1.2	0.00081	J	6	3.5	11.3	13	--	--	13	61	--	--	13	61	--	0.05	
Barium	27	32	44	26	0.077	46	59	1,500	--	--	--	--	5,500	14,000	--	--	5,500	14,000	--	2	
Beryllium	0.31	0.3	0.34	0.27	ND	UJ	0.52	0.44	22	--	--	--	160	410	--	--	160	410	--	0.004	
Boron	2.6	J	3.6	3.2	3.7	0.025	J	2.4	J	3.6	40	--	--	16,000	41,000	--	--	16,000	41,000	--	2
Cadmium	ND	U	ND	U	ND	U	ND	U	0.0002	J	ND	U	ND	U	5.2	--	--	78	200	--	0.005
Calcium	24,000	79,000	31,000	4,000	29	nc	2,000	25,000	--	--	--	--	--	--	--	--	--	--	--	--	
Chromium	10	8.3	10	7.7	0.018	18	12	21	--	--	--	--	230	690	--	--	230	690	--	0.1	
Cobalt	3.9	3.1	4.3	2	0.0022	5.1	5.6	20	--	--	--	--	4,700	12,000	--	--	4,700	12,000	--	1	
Copper	7.6	6.6	11	4.5	0.017	9.8	20	2,900	--	--	--	--	2,900	8,200	--	--	2,900	8,200	--	0.65	
Iron	9,800	8,700	9,000	4,500	4.2	20,000	†m	11,000	15,000	15,900	--	--	--	--	--	--	--	--	--	5	
Lead	5.8	11	17	16	0.0037	8.2	13	107	--	--	--	--	400	700	--	--	400	700	--	0.0075	
Magnesium	15,000	33,000	20,000	1,800	12	nc	2,100	14,000	325,000	--	--	--	--	730,000	--	--	--	730,000	--	--	
Manganese	330	260	280	97	0.11	110	230	630	636	--	--	--	1,600	4,100	--	--	1,600	4,100	--	0.15	
Mercury	0.017	J	0.018	0.016	J	0.012	J	ND	U	0.028	0.025	0.89	--	10	0.1	--	10	0.1	--	0.002	
Nickel	11	7	8.1	9.1	0.0086	14	9.9	100	--	--	--	--	1,600	4,100	--	--	1,600	4,100	--	0.1	
Potassium	550	590	630	410	3.2	nc	770	730	--	--	--	--	--	--	--	--	--	--	--	--	
Selenium	0.35	J	0.43	J	0.92	ND	U	0.0011	J	0.88	0.63	1.3	--	390	1,000	--	--	390	1,000	--	0.05
Silver	0.15	J	ND	U	0.14	J	0.11	J	ND	U	0.28	J	0.2	J	4.4	--	--	390	1,000	--	0.05
Sodium	380	1,200	1,400	160	120	nc	54	J	380	--	--	--	--	--	--	--	--	--	--	--	
Vanadium	22	17	20	10	0.012	41	26	550	--	--	--	--	550	1,400	--	--	550	1,400	--	0.049	
Zinc	18	25	50	23	0.042	40	73	5,100	--	--	--	--	23,000	61,000	--	--	23,000	61,000	--	5	
TCLP Metals (mg/L)																					
Barium	0.27	J	0.3	J	0.3	J	0.21	J	NA	0.26	J	0.53	--	--	--	--	--	--	--	2	--
Boron	ND	U	ND	U	0.054	J	ND	U	NA	0.055	J	0.056	J	--	--	--	--	--	--	2	--
Cadmium	ND	U	ND	U	0.003	J	ND	U	NA	ND	U	0.0021	J	--	--	--	--	--	--	0.005	--
Iron	ND	U	ND	U	ND	U	ND	U	NA	ND	U	ND	U	--	--	--	--	--	--	5	--
Manganese	0.36	L	0.68	L	0.54	L	0.21	L	NA	0.082	0.46	L	--	--	--	--	--	--	--	0.15	--
Zinc	ND	UJ	0.15	J	0.074	J	0.032	J	NA	ND	U	0.12	J	--	--	--	--	--	--	5	--
SPLP Metals (mg/L)																					
Manganese	0.49	L	1.1	L	1.1	L	0.29	L	NA	NA	0.49	L	--	--	--	--	--	--	--	0.15	--

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144861-3
Client Project/Site: IDOT - 176-001-WO041

For:
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Attn: Mr. Dean Tiebout

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Job ID: 500-144861-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144861-3

Receipt

The samples were received on 5/3/2018 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following samples was outside the upper control limit: 2273V-10-B06 (0-6) (500-144861-8). This sample did not contain any target analytes; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample contained two acid surrogates outside acceptance limits: 2273V-10-B06 (0-6) (500-144861-8). The sample did not have any target hits associated with the acid surrogates; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The following samples contained one base and / or acid surrogate outside acceptance limits: 2273V-10-B02 (0-6) (500-144861-10), 2273V-10-B04 (0-5) (500-144861-12) and 2273V-10-B01 (0-6) (500-144861-15). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 500-430916 recovered outside control limits for several analytes. These analytes were biased high in the LCS/LCSD and were not detected above the reporting limit in the associated sample; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-431902 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: 2273V-10-B01 (0-6) (500-144861-15).

Method(s) 6020A: The initial low level continuing calibration verification (ICVL) associated with batch 500-431132 recovered above the upper control limit for Beryllium. The bracketing CCVL were within control limits. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B06 (0-6)

Lab Sample ID: 500-144861-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0099	J	0.018	0.0079	mg/Kg	1	☼	8260B	Total/NA
Bis(2-ethylhexyl) phthalate	0.32		0.19	0.071	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.39	J	1.2	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.5		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	59	B	0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Boron	3.6		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	25000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.6		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	20	B	0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	230		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.9		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	730		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.63		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	380		58	8.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	73	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.056	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.46		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0080	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.015	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.039		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.036	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.020	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.026	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.44		0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.043		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.015	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.026	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.31	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.3		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	44	B	0.56	0.063	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4) (Continued)

Lab Sample ID: 500-144861-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.34		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	3.2		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	31000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	11	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	280		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.1		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	630		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.92		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Silver	0.14	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	50	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.054	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.54		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.074	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-10-B02 (0-6)

Lab Sample ID: 500-144861-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.030		0.021	0.0090	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.0068	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.013	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.011	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0079	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.28		0.19	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.013	J	0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.0075	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Arsenic	2.4		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	32	B	0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	3.6		2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	79000	B	110	18	mg/Kg	10	☼	6010B	Total/NA
Chromium	8.3		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.1		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	6.6	B	0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	8700		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000		5.3	2.6	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B02 (0-6) (Continued)

Lab Sample ID: 500-144861-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	260		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.0		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	590		26	9.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.43	J	0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	25	B	1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.68		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-10-B05 (0-6)

Lab Sample ID: 500-144861-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.22		0.20	0.072	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.0		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	46	B	0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J	2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	2000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.1		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	9.8	B	0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	8.2		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2100		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	110		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	770		29	10	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.88		0.59	0.34	mg/Kg	1	☼	6010B	Total/NA
Silver	0.28	J	0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	54	J	59	8.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	41		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	40	B	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.055	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.082		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.028		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-10-B04 (0-5)

Lab Sample ID: 500-144861-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.012	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0059	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B04 (0-5) (Continued)

Lab Sample ID: 500-144861-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.014	J	0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.28	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.2		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	26	B	0.56	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.27		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	3.7		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	4000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.7		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	4.5	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	4500		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	1800		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	97		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.1		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	410		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	23	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.032	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.29		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3



Client Sample ID: 2273V-10-B01 (0-6)

Lab Sample ID: 500-144861-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.44	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.0		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	27	B	0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.31		0.22	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	2.6	J	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	24000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.9		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	7.6	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	9800		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	5.8		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	11		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	550		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.35	J	0.54	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	380		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	18	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144861-8	2273V-10-B06 (0-6)	Solid	05/03/18 09:35	05/03/18 17:40
500-144861-9	2273V-10-B03 (0-4)	Solid	05/03/18 09:50	05/03/18 17:40
500-144861-10	2273V-10-B02 (0-6)	Solid	05/03/18 10:00	05/03/18 17:40
500-144861-11	2273V-10-B05 (0-6)	Solid	05/03/18 10:20	05/03/18 17:40
500-144861-12	2273V-10-B04 (0-5)	Solid	05/03/18 10:40	05/03/18 17:40
500-144861-15	2273V-10-B01 (0-6)	Solid	05/03/18 15:10	05/03/18 17:40



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B06 (0-6)

Lab Sample ID: 500-144861-8

Date Collected: 05/03/18 09:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0099	J	0.018	0.0079	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,1,1,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/04/18 18:15	05/14/18 16:26	1
Dibromofluoromethane	131	X	75 - 126	05/04/18 18:15	05/14/18 16:26	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	05/04/18 18:15	05/14/18 16:26	1
Toluene-d8 (Surr)	97		75 - 124	05/04/18 18:15	05/14/18 16:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B06 (0-6)

Lab Sample ID: 500-144861-8

Date Collected: 05/03/18 09:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B06 (0-6)

Lab Sample ID: 500-144861-8

Date Collected: 05/03/18 09:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Bis(2-ethylhexyl) phthalate	0.32		0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	138	X	46 - 133	05/10/18 07:05	05/11/18 03:06	1
Phenol-d5	129	X	46 - 125	05/10/18 07:05	05/11/18 03:06	1
Nitrobenzene-d5	110		41 - 120	05/10/18 07:05	05/11/18 03:06	1
2-Fluorobiphenyl	119		44 - 121	05/10/18 07:05	05/11/18 03:06	1
2,4,6-Tribromophenol	92		25 - 139	05/10/18 07:05	05/11/18 03:06	1
Terphenyl-d14	127		35 - 160	05/10/18 07:05	05/11/18 03:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.39	J	1.2	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Arsenic	3.5		0.58	0.20	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Barium	59	B	0.58	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Beryllium	0.44		0.23	0.054	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Boron	3.6		2.9	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Cadmium	0.30	B	0.12	0.021	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Calcium	25000	B	12	2.0	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Chromium	12		0.58	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Cobalt	5.6		0.29	0.075	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Copper	20	B	0.58	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Iron	11000		12	6.0	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Lead	13		0.29	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Magnesium	14000		5.8	2.9	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Manganese	230		0.58	0.084	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Nickel	9.9		0.58	0.17	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Potassium	730		29	10	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Selenium	0.63		0.58	0.34	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Silver	0.20	J	0.29	0.074	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Sodium	380		58	8.5	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Vanadium	26		0.29	0.068	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1
Zinc	73	B	1.2	0.51	mg/Kg	☼	05/08/18 17:18	05/10/18 05:57	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.53		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 13:56	1
Boron	0.056	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 13:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B06 (0-6)

Lab Sample ID: 500-144861-8

Date Collected: 05/03/18 09:35

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 82.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0021	J	0.0050	0.0020	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Iron	<0.40		0.40	0.20	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Manganese	0.46		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Silver	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 13:56	1
Zinc	0.12	J	0.50	0.020	mg/L	-	05/10/18 14:34	05/11/18 13:56	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.49		0.025	0.010	mg/L	-	05/09/18 16:33	05/11/18 02:55	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/10/18 14:34	05/14/18 15:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/10/18 14:34	05/14/18 15:58	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/10/18 12:15	05/11/18 12:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.019	0.0063	mg/Kg	☼	05/11/18 20:29	05/14/18 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU	-		05/10/18 17:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
2-Butanone (MEK)	<0.0039		0.0039	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1
Xylenes, Total	<0.0032		0.0032	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/04/18 18:15	05/14/18 16:54	1
Dibromofluoromethane	117		75 - 126	05/04/18 18:15	05/14/18 16:54	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	05/04/18 18:15	05/14/18 16:54	1
Toluene-d8 (Surr)	109		75 - 124	05/04/18 18:15	05/14/18 16:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Acenaphthylene	0.0080	J	0.038	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Phenanthrene	0.015	J	0.038	0.0054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Fluoranthene	0.039		0.038	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Pyrene	0.036	J	0.038	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[a]anthracene	0.020	J	0.038	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.026	J	0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Bis(2-ethylhexyl) phthalate	0.44		0.19	0.070	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[b]fluoranthene	0.043		0.038	0.0083	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[k]fluoranthene	0.015	J	0.038	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[a]pyrene	0.026	J	0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.038	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
Benzo[g,h,i]perylene	0.015	J	0.038	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		46 - 133	05/10/18 07:05	05/11/18 03:31	1
Phenol-d5	120		46 - 125	05/10/18 07:05	05/11/18 03:31	1
Nitrobenzene-d5	104		41 - 120	05/10/18 07:05	05/11/18 03:31	1
2-Fluorobiphenyl	113		44 - 121	05/10/18 07:05	05/11/18 03:31	1
2,4,6-Tribromophenol	86		25 - 139	05/10/18 07:05	05/11/18 03:31	1
Terphenyl-d14	123		35 - 160	05/10/18 07:05	05/11/18 03:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Arsenic	2.3		0.56	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Barium	44	B	0.56	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Beryllium	0.34		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Boron	3.2		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Cadmium	0.27	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Calcium	31000	B	11	1.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Chromium	10		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Cobalt	4.3		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Copper	11	B	0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Iron	9000		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Lead	17		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Magnesium	20000		5.6	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Manganese	280		0.56	0.081	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Nickel	8.1		0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Potassium	630		28	9.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Selenium	0.92		0.56	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Silver	0.14	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Sodium	1400		56	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Vanadium	20		0.28	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1
Zinc	50	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 06:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:00	1
Boron	0.054	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B03 (0-4)

Lab Sample ID: 500-144861-9

Date Collected: 05/03/18 09:50

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 86.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Iron	<0.40		0.40	0.20	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Manganese	0.54		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Silver	<0.025		0.025	0.010	mg/L	-	05/10/18 14:34	05/11/18 14:00	1
Zinc	0.074	J	0.50	0.020	mg/L	-	05/10/18 14:34	05/11/18 14:00	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L	-	05/09/18 16:33	05/11/18 02:59	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/10/18 14:34	05/14/18 16:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/10/18 14:34	05/14/18 16:01	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/10/18 12:15	05/11/18 12:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.019	0.0064	mg/Kg	☼	05/11/18 20:29	05/14/18 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU	-		05/10/18 17:18	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B02 (0-6)

Lab Sample ID: 500-144861-10

Date Collected: 05/03/18 10:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.030		0.021	0.0090	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Benzene	<0.0021		0.0021	0.00053	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Bromodichloromethane	<0.0021		0.0021	0.00042	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Bromoform	<0.0021		0.0021	0.00060	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
2-Butanone (MEK)	<0.0052		0.0052	0.0023	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Carbon tetrachloride	<0.0021		0.0021	0.00060	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Chlorobenzene	<0.0021		0.0021	0.00076	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Chloroethane	<0.0052		0.0052	0.0015	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Chloroform	<0.0021		0.0021	0.00072	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Chloromethane	<0.0052		0.0052	0.0021	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00058	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00062	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Dibromochloromethane	<0.0021		0.0021	0.00068	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,1-Dichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,1,1-Dichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,2-Dichloropropane	<0.0021		0.0021	0.00053	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00073	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Ethylbenzene	<0.0021		0.0021	0.00099	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Methylene Chloride	<0.0052		0.0052	0.0020	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0015	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00061	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Styrene	<0.0021		0.0021	0.00062	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,1,1,2-Tetrachloroethane	<0.0021		0.0021	0.00066	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Tetrachloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Toluene	<0.0021		0.0021	0.00052	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00092	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00073	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00069	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00089	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Trichloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Vinyl acetate	<0.0052		0.0052	0.0018	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Vinyl chloride	<0.0021		0.0021	0.00091	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1
Xylenes, Total	<0.0041		0.0041	0.00066	mg/Kg	☼	05/04/18 18:15	05/15/18 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/04/18 18:15	05/15/18 14:34	1
Dibromofluoromethane	85		75 - 126	05/04/18 18:15	05/15/18 14:34	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	05/04/18 18:15	05/15/18 14:34	1
Toluene-d8 (Surr)	93		75 - 124	05/04/18 18:15	05/15/18 14:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B02 (0-6)

Lab Sample ID: 500-144861-10

Date Collected: 05/03/18 10:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Phenanthrene	0.0068	J	0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Fluoranthene	0.013	J	0.037	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Pyrene	0.011	J	0.037	0.0075	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Benzo[a]anthracene	0.0079	J	0.037	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B02 (0-6)

Lab Sample ID: 500-144861-10

Date Collected: 05/03/18 10:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Bis(2-ethylhexyl) phthalate	0.28		0.19	0.069	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Benzo[b]fluoranthene	0.013	J	0.037	0.0081	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Benzo[a]pyrene	0.0075	J	0.037	0.0073	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 03:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135	X	46 - 133	05/10/18 07:05	05/11/18 03:56	1
Phenol-d5	120		46 - 125	05/10/18 07:05	05/11/18 03:56	1
Nitrobenzene-d5	106		41 - 120	05/10/18 07:05	05/11/18 03:56	1
2-Fluorobiphenyl	118		44 - 121	05/10/18 07:05	05/11/18 03:56	1
2,4,6-Tribromophenol	78		25 - 139	05/10/18 07:05	05/11/18 03:56	1
Terphenyl-d14	124		35 - 160	05/10/18 07:05	05/11/18 03:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Arsenic	2.4		0.53	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Barium	32	B	0.53	0.060	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Beryllium	0.30		0.21	0.049	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Boron	3.6		2.6	0.25	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Cadmium	0.14	B	0.11	0.019	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Calcium	79000	B	110	18	mg/Kg	☼	05/08/18 17:18	05/11/18 02:18	10
Chromium	8.3		0.53	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Cobalt	3.1		0.26	0.069	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Copper	6.6	B	0.53	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Iron	8700		11	5.5	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Lead	11		0.26	0.12	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Magnesium	33000		5.3	2.6	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Manganese	260		0.53	0.077	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Nickel	7.0		0.53	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Potassium	590		26	9.4	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Selenium	0.43	J	0.53	0.31	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Sodium	1200		53	7.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Vanadium	17		0.26	0.062	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1
Zinc	25	B	1.1	0.46	mg/Kg	☼	05/08/18 17:18	05/10/18 06:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:04	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B02 (0-6)

Lab Sample ID: 500-144861-10

Date Collected: 05/03/18 10:00

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.0

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:04	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:04	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:04	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:04	1
Manganese	0.68		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:04	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:04	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:04	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:04	1
Zinc	0.15	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:04	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:03	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0059	mg/Kg	☼	05/11/18 20:29	05/14/18 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU			05/10/18 17:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B05 (0-6)

Lab Sample ID: 500-144861-11

Date Collected: 05/03/18 10:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/04/18 18:15	05/14/18 17:56	1
Dibromofluoromethane	108		75 - 126	05/04/18 18:15	05/14/18 17:56	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	05/04/18 18:15	05/14/18 17:56	1
Toluene-d8 (Surr)	110		75 - 124	05/04/18 18:15	05/14/18 17:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B05 (0-6)

Lab Sample ID: 500-144861-11

Date Collected: 05/03/18 10:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4-Dinitrophenol	<0.80		0.80	0.69	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Hexachlorobenzene	<0.080		0.080	0.0091	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B05 (0-6)

Lab Sample ID: 500-144861-11

Date Collected: 05/03/18 10:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Bis(2-ethylhexyl) phthalate	0.22		0.20	0.072	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 04:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	133		46 - 133	05/10/18 07:05	05/11/18 04:21	1
Phenol-d5	119		46 - 125	05/10/18 07:05	05/11/18 04:21	1
Nitrobenzene-d5	108		41 - 120	05/10/18 07:05	05/11/18 04:21	1
2-Fluorobiphenyl	120		44 - 121	05/10/18 07:05	05/11/18 04:21	1
2,4,6-Tribromophenol	84		25 - 139	05/10/18 07:05	05/11/18 04:21	1
Terphenyl-d14	126		35 - 160	05/10/18 07:05	05/11/18 04:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Arsenic	6.0		0.59	0.20	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Barium	46	B	0.59	0.067	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Beryllium	0.52		0.23	0.055	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Boron	2.4	J	2.9	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Cadmium	0.20	B	0.12	0.021	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Calcium	2000	B	12	2.0	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Chromium	18		0.59	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Cobalt	5.1		0.29	0.077	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Copper	9.8	B	0.59	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Iron	20000		12	6.1	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Lead	8.2		0.29	0.14	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Magnesium	2100		5.9	2.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Manganese	110		0.59	0.085	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Nickel	14		0.59	0.17	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Potassium	770		29	10	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Selenium	0.88		0.59	0.34	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Silver	0.28	J	0.29	0.076	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Sodium	54	J	59	8.7	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Vanadium	41		0.29	0.069	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1
Zinc	40	B	1.2	0.51	mg/Kg	☼	05/08/18 17:18	05/10/18 06:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.26	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:08	1
Boron	0.055	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B05 (0-6)

Lab Sample ID: 500-144861-11

Date Collected: 05/03/18 10:20

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 83.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:08	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:08	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:08	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:08	1
Manganese	0.082		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:08	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:08	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:08	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:08	1
Zinc	<0.50		0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:08	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:08	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0064	mg/Kg	✱	05/11/18 20:29	05/14/18 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4		0.20	0.20	SU			05/10/18 17:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B04 (0-5)

Lab Sample ID: 500-144861-12

Date Collected: 05/03/18 10:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,1,1,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/04/18 18:15	05/14/18 18:26	1
Dibromofluoromethane	103		75 - 126	05/04/18 18:15	05/14/18 18:26	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	05/04/18 18:15	05/14/18 18:26	1
Toluene-d8 (Surr)	110		75 - 124	05/04/18 18:15	05/14/18 18:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B04 (0-5)

Lab Sample ID: 500-144861-12

Date Collected: 05/03/18 10:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Phenanthrene	<0.036		0.036	0.0051	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Fluoranthene	0.012	J	0.036	0.0067	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Pyrene	0.010	J	0.036	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Benzo[a]anthracene	0.0059	J	0.036	0.0049	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B04 (0-5)

Lab Sample ID: 500-144861-12

Date Collected: 05/03/18 10:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.0099	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Benzo[b]fluoranthene	0.014	J	0.036	0.0078	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 04:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/10/18 07:05	05/11/18 04:46	1
Phenol-d5	125		46 - 125	05/10/18 07:05	05/11/18 04:46	1
Nitrobenzene-d5	113		41 - 120	05/10/18 07:05	05/11/18 04:46	1
2-Fluorobiphenyl	122	X	44 - 121	05/10/18 07:05	05/11/18 04:46	1
2,4,6-Tribromophenol	81		25 - 139	05/10/18 07:05	05/11/18 04:46	1
Terphenyl-d14	125		35 - 160	05/10/18 07:05	05/11/18 04:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	1.1	0.22	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Arsenic	1.2		0.56	0.19	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Barium	26	B	0.56	0.063	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Beryllium	0.27		0.22	0.052	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Boron	3.7		2.8	0.26	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Cadmium	0.17	B	0.11	0.020	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Calcium	4000	B	11	1.9	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Chromium	7.7		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Cobalt	2.0		0.28	0.073	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Copper	4.5	B	0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Iron	4500		11	5.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Lead	16		0.28	0.13	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Magnesium	1800		5.6	2.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Manganese	97		0.56	0.081	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Nickel	9.1		0.56	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Potassium	410		28	9.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Silver	0.11	J	0.28	0.072	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Sodium	160		56	8.2	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Vanadium	10		0.28	0.066	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1
Zinc	23	B	1.1	0.49	mg/Kg	☼	05/08/18 17:18	05/10/18 06:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.21	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:12	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B04 (0-5)

Lab Sample ID: 500-144861-12

Date Collected: 05/03/18 10:40

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:12	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:12	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:12	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:12	1
Manganese	0.21		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:12	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:12	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:12	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:12	1
Zinc	0.032	J	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:12	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.29		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:11	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:11	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0056	mg/Kg	☼	05/11/18 20:29	05/14/18 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.20	0.20	SU			05/10/18 17:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B01 (0-6)

Lab Sample ID: 500-144861-15

Date Collected: 05/03/18 15:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Bromoform	<0.0017		0.0017	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Chloroform	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Chloromethane	<0.0041		0.0041	0.0017	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Tetrachloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00073	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Vinyl chloride	<0.0017		0.0017	0.00073	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	05/04/18 18:15	05/14/18 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/04/18 18:15	05/14/18 18:56	1
Dibromofluoromethane	120		75 - 126	05/04/18 18:15	05/14/18 18:56	1
1,2-Dichloroethane-d4 (Surr)	121		70 - 134	05/04/18 18:15	05/14/18 18:56	1
Toluene-d8 (Surr)	99		75 - 124	05/04/18 18:15	05/14/18 18:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B01 (0-6)

Lab Sample ID: 500-144861-15

Date Collected: 05/03/18 15:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Methylnaphthalene	<0.075		0.075	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B01 (0-6)

Lab Sample ID: 500-144861-15

Date Collected: 05/03/18 15:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/10/18 07:05	05/11/18 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/10/18 07:05	05/11/18 05:11	1
Phenol-d5	123		46 - 125	05/10/18 07:05	05/11/18 05:11	1
Nitrobenzene-d5	112		41 - 120	05/10/18 07:05	05/11/18 05:11	1
2-Fluorobiphenyl	121		44 - 121	05/10/18 07:05	05/11/18 05:11	1
2,4,6-Tribromophenol	75		25 - 139	05/10/18 07:05	05/11/18 05:11	1
Terphenyl-d14	132		35 - 160	05/10/18 07:05	05/11/18 05:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.44	J	1.1	0.21	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Arsenic	2.0		0.54	0.18	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Barium	27	B	0.54	0.062	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Beryllium	0.31		0.22	0.050	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Boron	2.6	J	2.7	0.25	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Cadmium	0.15	B	0.11	0.019	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Calcium	24000	B	11	1.8	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Chromium	10		0.54	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Cobalt	3.9		0.27	0.071	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Copper	7.6	B	0.54	0.15	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Iron	9800		11	5.6	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Lead	5.8		0.27	0.12	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Magnesium	15000		5.4	2.7	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Manganese	330		0.54	0.078	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Nickel	11		0.54	0.16	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Potassium	550		27	9.6	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Selenium	0.35	J	0.54	0.32	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Silver	0.15	J	0.27	0.070	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Sodium	380		54	8.0	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Vanadium	22		0.27	0.064	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1
Zinc	18	B	1.1	0.47	mg/Kg	☼	05/08/18 17:18	05/10/18 06:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.27	J	0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/10/18 14:34	05/11/18 14:24	1
Boron	<0.50		0.50	0.050	mg/L		05/10/18 14:34	05/11/18 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Client Sample ID: 2273V-10-B01 (0-6)

Lab Sample ID: 500-144861-15

Date Collected: 05/03/18 15:10

Matrix: Solid

Date Received: 05/03/18 17:40

Percent Solids: 87.4

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/10/18 14:34	05/11/18 14:24	1
Chromium	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:24	1
Cobalt	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:24	1
Iron	<0.40		0.40	0.20	mg/L		05/10/18 14:34	05/11/18 14:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/10/18 14:34	05/11/18 14:24	1
Manganese	0.36		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:24	1
Nickel	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:24	1
Selenium	<0.050		0.050	0.020	mg/L		05/10/18 14:34	05/11/18 14:24	1
Silver	<0.025		0.025	0.010	mg/L		05/10/18 14:34	05/11/18 14:24	1
Zinc	<0.50	^	0.50	0.020	mg/L		05/10/18 14:34	05/11/18 14:24	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.49		0.025	0.010	mg/L		05/09/18 16:33	05/11/18 03:22	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/10/18 14:34	05/14/18 16:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/10/18 14:34	05/14/18 16:15	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/10/18 12:15	05/11/18 12:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0060	mg/Kg	☼	05/11/18 20:29	05/14/18 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4		0.20	0.20	SU			05/10/18 17:39	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144861-3

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D. Trebust
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144861
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
<u>EFE</u>		<u>1009341.0041.02</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #																	
<u>FAP 525 (WS 20)</u>																			
Project Location/State		Lab PM																	
<u>McHenry Co, IL</u>		<u>R Wright</u>																	
Sampler																			
<u>R Fehr</u>																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	TLPL/SPLP	total Metals	Sediment	pH							Comments
			Date	Time															
<u>8</u>		<u>2273V-10-B06(0-6)</u>	<u>5/3/18</u>	<u>0935</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>9</u>		<u>2273V-10-B03(0-4)</u>		<u>0950</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>10</u>		<u>2273V-10-B02(0-6)</u>		<u>1000</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>11</u>		<u>2273V-10-B05(0-6)</u>		<u>1020</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>12</u>		<u>2273V-10-B04(0-5)</u>		<u>1040</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>13</u>		<u>2273V-10-G04</u>		<u>1055</u>	<u>6</u>	<u>W</u>	<u>X</u>	<u>X</u>	<u>X</u>										
<u>14</u>		<u>2273V-00-TB1</u>	<u>4/27/18</u>	<u>-</u>	<u>2</u>	<u>W</u>	<u>X</u>												
<u>15</u>		<u>2273V-10-B01(0-6)</u>	<u>5/3/18</u>	<u>1510</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>EFE</u>	Date <u>5/3/18</u>	Time <u>1545</u>	Received By <u>P. Neal</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1545</u>
Relinquished By <u>P. Neal</u>	Company <u>TA</u>	Date <u>5/3/18</u>	Time <u>1740</u>	Received By <u>[Signature]</u>	Company <u>TA-CHL</u>	Date <u>5/4/18</u>	Time <u>0715</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: [Signature]
 Shipped: _____
 Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____
 Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144861-3

Login Number: 144861

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4,5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8600 block of S. Union Road (ISGS #3696-40)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20388 Longitude: -88.55059
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-11-B01 through 2273V-11-B03 were sampled within the construction zone adjacent to ISGS #3696-40 (2273V-11, Vacant Land). Refer to PSI Report for ISGS #3696-40 (2273V-11, Vacant Land) including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J145111-1.


IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

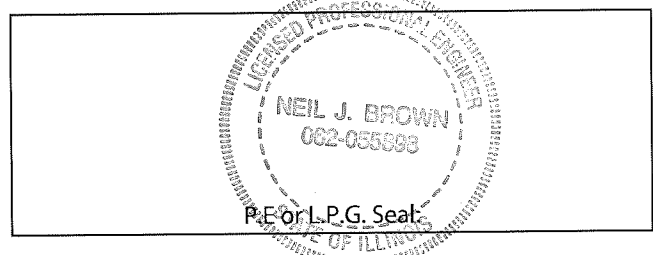
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-40 (Vacant Land)			Comparison Criteria					
	2273V-11-B01	2273V-11-B02	2273V-11-B03	MACs			TACO		
BORING	2273V-11-B01	2273V-11-B02	2273V-11-B03	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2273V-11-B01 (0-6)	2273V-11-B02 (0-6)	2273V-11-B03 (0-6)						
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-6	0-6	0-6						
pH	8.7	8.5	8						
PID	--	--	--						
VOCs (None Detected)									
SVOCs (None Detected)									
Inorganics (mg/kg)									
Arsenic	3.9	4.1	1.8 J	11.3	13	--	13	61	--
Barium	86	46	71	1,500	--	--	5,500	14,000	--
Beryllium	0.62	0.5	0.6	22	--	--	160	410	--
Boron	3.3	6.1	3.2 J	40	--	--	16,000	41,000	--
Calcium	4,700	49,000	4,000 J	--	--	--	--	--	--
Chromium	19	14	20	21	--	--	230	690	--
Cobalt	5.8	8.3	5	20	--	--	4,700	12,000	--
Copper	9.4	13	7.8	2,900	--	--	2,900	8,200	--
Iron	16,000 †m	16,000 †m	14,000	15,000	15,900	--	--	--	--
Lead	9.7	8.3	11 J	107	--	--	400	700	--
Magnesium	3,900	23,000	3,500	325,000	--	--	--	730,000	--
Manganese	200	470	65 J	630	636	--	1,600	4,100	--
Mercury	0.038	0.023	0.024	0.89	--	--	10	0.1	--
Nickel	14	19	13	100	--	--	1,600	4,100	--
Potassium	730	1,300	800 J	--	--	--	--	--	--
Silver	0.27 J	0.2 J	0.28	4.4	--	--	390	1,000	--
Sodium	860	280	110	--	--	--	--	--	--
Thallium	0.42 J	ND U	0.36 J	2.6	--	--	6.3	160	--
Vanadium	41	36	46	550	--	--	550	1,400	--
Zinc	39	30	48	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.47 J	0.3 J	0.22 J	--	--	--	--	--	2
Boron	0.051 J	ND U	ND U	--	--	--	--	--	2
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	0.91 L	0.2 L	0.053	--	--	--	--	--	0.15
SPLP Metals (mg/L)									
Manganese	0.26 L	0.32 L	NA	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145111-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/22/2018 4:04:18 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Job ID: 500-145111-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145111-1

Receipt

The samples were received on 5/8/2018 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.6° C.

GC/MS VOA

Method(s) 8260B: One surrogate recovery for the following samples was outside the upper control limit: 2273V-11-B02 (0-6) (500-145111-2) and 2273V-11-B01 (0-6) (500-145111-3). The samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The following analytes recovered outside control limits for the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with analytical batch 432550: Chloroethane and Styrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodi-n-propylamine The laboratory control sample (LCS) for preparation batch 500-432247 and analytical batch 500-432418 recovered outside control limits for the following analytes: 2-Nitroaniline, Bis(2-chloroethyl)ether, Isophorone and N-Nitrosodiphenylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: (LCS 500-432247/2-A). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 113, associated with batch 500-432289 recovered above the upper control limit for Antimony and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B03 (0-6)

Lab Sample ID: 500-145111-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.8	F1	0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	71		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	3.2	B F1	2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B F1	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	4000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	20		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.0		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	7.8		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	11	F1	0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3500		5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	65	F1	0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	800	F1	26	9.3	mg/Kg	1	☼	6010B	Total/NA
Silver	0.28		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Sodium	110		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.36	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	46		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	48		1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.053		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.024		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.1		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	6.1	B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	49000	B	50	8.5	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.25	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	8.3		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	470		0.50	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		25	8.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		50	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	36		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	30		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	SPLP East

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6) (Continued)

Lab Sample ID: 500-145111-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.023		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-11-B01 (0-6)

Lab Sample ID: 500-145111-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.9		0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	86		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	3.3	B	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	4700	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.8		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	9.7		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3900		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	200		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	730		30	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.27	J	0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	860		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.42	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	41		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.051	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.91		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.26		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145111-1	2273V-11-B03 (0-6)	Solid	05/08/18 10:05	05/08/18 17:45
500-145111-2	2273V-11-B02 (0-6)	Solid	05/08/18 10:23	05/08/18 17:45
500-145111-3	2273V-11-B01 (0-6)	Solid	05/08/18 10:10	05/08/18 17:45

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B03 (0-6)

Lab Sample ID: 500-145111-1

Date Collected: 05/08/18 10:05

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	05/09/18 09:07	05/17/18 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 131	05/09/18 09:07	05/17/18 16:26	1
Dibromofluoromethane	84		75 - 126	05/09/18 09:07	05/17/18 16:26	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	05/09/18 09:07	05/17/18 16:26	1
Toluene-d8 (Surr)	91		75 - 124	05/09/18 09:07	05/17/18 16:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Bis(2-chloroethyl)ether	<0.20	* F2	0.20	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B03 (0-6)

Lab Sample ID: 500-145111-1

Date Collected: 05/08/18 10:05

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
N-Nitrosodi-n-propylamine	<0.079	*	0.079	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Isophorone	<0.20	*	0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Nitroaniline	<0.20	*	0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Pentachlorophenol	<0.79		0.79	0.62	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1

TestAmerica Chicago

Client Sample Results

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TestAmerica Job ID: 500-145111-1

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Lab Sample ID: 500-145111-1

Date Collected: 05/08/18 10:05

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 11:49	1
Phenol-d5	99		46 - 125	05/15/18 07:06	05/16/18 11:49	1
Nitrobenzene-d5	92		41 - 120	05/15/18 07:06	05/16/18 11:49	1
2-Fluorobiphenyl	103		44 - 121	05/15/18 07:06	05/16/18 11:49	1
2,4,6-Tribromophenol	102		25 - 139	05/15/18 07:06	05/16/18 11:49	1
Terphenyl-d14	139		35 - 160	05/15/18 07:06	05/16/18 11:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Arsenic	1.8	F1	0.53	0.18	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Barium	71		0.53	0.060	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Beryllium	0.60		0.21	0.049	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Boron	3.2	B F1	2.6	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Cadmium	0.16	B F1	0.11	0.019	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Calcium	4000	B	11	1.8	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Chromium	20		0.53	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Cobalt	5.0		0.26	0.069	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Copper	7.8		0.53	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Iron	14000		11	5.5	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Lead	11	F1	0.26	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Magnesium	3500		5.3	2.6	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Manganese	65	F1	0.53	0.077	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Nickel	13		0.53	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Potassium	800	F1	26	9.3	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Selenium	<0.53	F1	0.53	0.31	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Silver	0.28		0.26	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Sodium	110		53	7.8	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Thallium	0.36	J	0.53	0.26	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Vanadium	46		0.26	0.062	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1
Zinc	48		1.1	0.46	mg/Kg	☼	05/11/18 07:44	05/11/18 21:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:36	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B03 (0-6)

Lab Sample ID: 500-145111-1

Date Collected: 05/08/18 10:05

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Iron	<0.40		0.40	0.20	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Manganese	0.053		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Silver	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:36	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/12/18 14:18	05/14/18 19:36	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L	-	05/12/18 14:18	05/14/18 19:48	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	05/12/18 14:18	05/14/18 19:48	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/14/18 18:37	05/15/18 23:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0060	mg/Kg	☆	05/16/18 16:45	05/17/18 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU	-		05/14/18 15:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloroethane	<0.0048	*	0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Styrene	<0.0019	*	0.0019	0.00059	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	05/09/18 09:07	05/16/18 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	05/09/18 09:07	05/16/18 16:12	1
Dibromofluoromethane	133	X	75 - 126	05/09/18 09:07	05/16/18 16:12	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	05/09/18 09:07	05/16/18 16:12	1
Toluene-d8 (Surr)	86		75 - 124	05/09/18 09:07	05/16/18 16:12	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.057	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
N-Nitrosodi-n-propylamine	<0.077	*	0.077	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Nitroaniline	<0.19	*	0.19	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		46 - 133	05/15/18 07:06	05/16/18 12:17	1
Phenol-d5	105		46 - 125	05/15/18 07:06	05/16/18 12:17	1
Nitrobenzene-d5	94		41 - 120	05/15/18 07:06	05/16/18 12:17	1
2-Fluorobiphenyl	104		44 - 121	05/15/18 07:06	05/16/18 12:17	1
2,4,6-Tribromophenol	92		25 - 139	05/15/18 07:06	05/16/18 12:17	1
Terphenyl-d14	136		35 - 160	05/15/18 07:06	05/16/18 12:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.19	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Arsenic	4.1		0.50	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Barium	46		0.50	0.057	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Beryllium	0.50		0.20	0.047	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Boron	6.1 B		2.5	0.23	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Cadmium	0.18 B		0.10	0.018	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Calcium	49000 B		50	8.5	mg/Kg	☼	05/11/18 07:44	05/16/18 01:51	5
Chromium	14		0.50	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Cobalt	8.3		0.25	0.065	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Copper	13		0.50	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Iron	16000		10	5.2	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Lead	8.3		0.25	0.12	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Magnesium	23000		5.0	2.5	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Manganese	470		0.50	0.072	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Nickel	19		0.50	0.15	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Potassium	1300		25	8.8	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Selenium	<0.50		0.50	0.29	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Silver	0.20 J		0.25	0.064	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Sodium	280		50	7.4	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Vanadium	36		0.25	0.059	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1
Zinc	30		1.0	0.44	mg/Kg	☼	05/11/18 07:44	05/11/18 22:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.30 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:40	1
Boron	<0.50		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B02 (0-6)

Lab Sample ID: 500-145111-2

Date Collected: 05/08/18 10:23

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 86.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Iron	<0.40		0.40	0.20	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Manganese	0.20		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Silver	<0.025		0.025	0.010	mg/L	-	05/12/18 14:18	05/14/18 19:40	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/12/18 14:18	05/14/18 19:40	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.32		0.025	0.010	mg/L	-	05/12/18 14:16	05/16/18 05:05	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L	-	05/12/18 14:18	05/14/18 19:51	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L	-	05/12/18 14:18	05/14/18 19:51	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/14/18 18:37	05/15/18 23:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0062	mg/Kg	☼	05/16/18 16:45	05/17/18 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.20	0.20	SU	-		05/14/18 16:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B01 (0-6)

Lab Sample ID: 500-145111-3

Date Collected: 05/08/18 10:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Chloroethane	<0.0048	*	0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Styrene	<0.0019	*	0.0019	0.00058	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	05/09/18 09:07	05/16/18 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		75 - 131	05/09/18 09:07	05/16/18 16:39	1
Dibromofluoromethane	126		75 - 126	05/09/18 09:07	05/16/18 16:39	1
1,2-Dichloroethane-d4 (Surr)	137	X	70 - 134	05/09/18 09:07	05/16/18 16:39	1
Toluene-d8 (Surr)	109		75 - 124	05/09/18 09:07	05/16/18 16:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.059	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B01 (0-6)

Lab Sample ID: 500-145111-3

Date Collected: 05/08/18 10:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
N-Nitrosodi-n-propylamine	<0.080	*	0.080	0.048	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Isophorone	<0.20	*	0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Nitroaniline	<0.20	*	0.20	0.053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B01 (0-6)

Lab Sample ID: 500-145111-3

Date Collected: 05/08/18 10:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	05/15/18 07:06	05/16/18 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		46 - 133	05/15/18 07:06	05/16/18 12:45	1
Phenol-d5	114		46 - 125	05/15/18 07:06	05/16/18 12:45	1
Nitrobenzene-d5	93		41 - 120	05/15/18 07:06	05/16/18 12:45	1
2-Fluorobiphenyl	103		44 - 121	05/15/18 07:06	05/16/18 12:45	1
2,4,6-Tribromophenol	99		25 - 139	05/15/18 07:06	05/16/18 12:45	1
Terphenyl-d14	133		35 - 160	05/15/18 07:06	05/16/18 12:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Arsenic	3.9		0.60	0.21	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Barium	86		0.60	0.068	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Beryllium	0.62		0.24	0.056	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Boron	3.3 B		3.0	0.28	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Cadmium	0.18 B		0.12	0.022	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Calcium	4700 B		12	2.0	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Chromium	19		0.60	0.30	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Cobalt	5.8		0.30	0.079	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Copper	9.4		0.60	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Iron	16000		12	6.2	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Lead	9.7		0.30	0.14	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Magnesium	3900		6.0	3.0	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Manganese	200		0.60	0.087	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Nickel	14		0.60	0.17	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Potassium	730		30	11	mg/Kg	☼	05/11/18 07:44	05/16/18 01:55	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Silver	0.27 J		0.30	0.077	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Sodium	860		60	8.9	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Thallium	0.42 J		0.60	0.30	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Vanadium	41		0.30	0.071	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1
Zinc	39		1.2	0.53	mg/Kg	☼	05/11/18 07:44	05/11/18 22:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.47 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/12/18 14:18	05/14/18 19:44	1
Boron	0.051 J		0.50	0.050	mg/L		05/12/18 14:18	05/14/18 19:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Client Sample ID: 2273V-11-B01 (0-6)

Lab Sample ID: 500-145111-3

Date Collected: 05/08/18 10:10

Matrix: Solid

Date Received: 05/08/18 17:45

Percent Solids: 82.2

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/12/18 14:18	05/14/18 19:44	1
Chromium	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:44	1
Cobalt	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:44	1
Iron	<0.40		0.40	0.20	mg/L		05/12/18 14:18	05/14/18 19:44	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/12/18 14:18	05/14/18 19:44	1
Manganese	0.91		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:44	1
Nickel	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:44	1
Selenium	<0.050		0.050	0.020	mg/L		05/12/18 14:18	05/14/18 19:44	1
Silver	<0.025		0.025	0.010	mg/L		05/12/18 14:18	05/14/18 19:44	1
Zinc	<0.50		0.50	0.020	mg/L		05/12/18 14:18	05/14/18 19:44	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.26		0.025	0.010	mg/L		05/12/18 14:16	05/16/18 05:09	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	^	0.0060	0.0060	mg/L		05/12/18 14:18	05/14/18 19:55	1
Thallium	<0.0020	^	0.0020	0.0020	mg/L		05/12/18 14:18	05/14/18 19:55	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/14/18 18:37	05/15/18 23:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.019	0.0065	mg/Kg	☼	05/16/18 16:45	05/17/18 10:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.20	0.20	SU			05/14/18 16:05	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-145111-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____



Chain of Custody Record

Lab Job #: 500-145111
 Chain of Custody Number: _____
 Page 6 of 6
 Temperature °C of Cooler: (3.6)(2.4)

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
E+E		1009341.0041.02									
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Preservative Key	
176-001-W041				Date Time		Matrix				1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Location/State		Lab PM									
Marengo, IL		D. Wright									
Sampler											
M F, JH											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SUOC	Total/TCDF Metals	pH	Percent Solid
1		2273V-11-B03 (0-6)	5/8	1005	5	5	X	X	X	X	X
2		2273V-11-B02 (0-6)	5/8	1023	5	5	X	X	X	X	X
3		2273V-11-B01 (0-6)	5/8	1010	5	5	X	X	X	X	X

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>J. Hughes</u> Company: <u>E+E</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1530</u>	Lab Courier: <input checked="" type="checkbox"/>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>5/8/18</u> Time: <u>1745</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>05/08/18</u> Time: <u>1745</u>	Shipped: <input type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: <input type="checkbox"/>

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-145111-1

Login Number: 145111

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(3.6)(2.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8512 S. Union Road (ISGS #3696-41)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20413 Longitude: -88.54873
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations 2273V-04-B01 through 2273V-04-B03 were sampled within the construction zone adjacent to ISGS #3696-41 (2273V-4, Commercial Buildings). Refer to PSI Report for ISGS #3696-41 (2273V-4, Commercial Buildings) including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J144976-1.

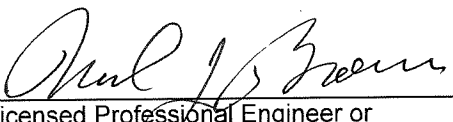
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-41 (Commercial Buildings)			Comparison Criteria					
	2273V-04-B01	2273V-04-B02	2273V-04-B03	MACs			TACO		
BORING	2273V-04-B01	2273V-04-B02	2273V-04-B03	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2273V-04-B01 (0-5)	2273V-04-B02 (0-5)	2273V-04-B03 (0-5)						
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-5	0-5	0-5						
pH	8.2	7.7	7.9						
PID	--	--	--						
VOCs (mg/kg)									
2-Butanone (MEK)	0.0035 J	ND U	ND U	--	--	--	--	--	--
Acetone	0.024	ND U	ND U	25	--	--	70,000	100,000	--
SVOCs (mg/kg)									
2-Methylnaphthalene	0.014 J	ND U	ND U	--	--	--	--	--	--
Acenaphthylene	0.006 J	ND U	ND U	--	--	--	--	--	--
Anthracene	0.011 J	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.039 J	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.045 J	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.061 J	ND U	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.02 J	0.029 J	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.018 J	ND U	ND U	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	0.087 J	ND U	ND U	46	--	--	46	4,100	--
Chrysene	0.051	ND U	ND U	88	--	--	88	17,000	--
Fluoranthene	0.056	ND U	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.016 J	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0081 J	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.053	ND U	ND U	--	--	--	--	--	--
Pyrene	0.089 J	0.0089 J	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)									
Arsenic	2.1	4.2	3.9	11.3	13	--	13	61	--
Barium	27	46	53	1,500	--	--	5,500	14,000	--
Beryllium	0.24	0.33	0.51	22	--	--	160	410	--
Boron	4.4	ND U	ND U	40	--	--	16,000	41,000	--
Calcium	48,000	41,000	17,000	--	--	--	--	--	--
Chromium	8.2	9.7	14	21	--	--	230	690	--
Cobalt	3.1	4.5	6.3	20	--	--	4,700	12,000	--
Copper	9	8.9	9.8	2,900	--	--	2,900	8,200	--
Iron	7,200	9,900	13,000	15,000	15,900	--	--	--	--
Lead	69	8.6	14	107	--	--	400	700	--
Magnesium	24,000	19,000	12,000	325,000	--	--	--	730,000	--
Manganese	140	290	300	630	636	--	1,600	4,100	--
Mercury	0.022	0.0086 J	0.024	0.89	--	--	10	0.1	--
Nickel	7.4	9.6	13	100	--	--	1,600	4,100	--
Potassium	530	830	790	--	--	--	--	--	--
Selenium	0.33 J	ND U	ND U	1.3	--	--	390	1,000	--
Silver	0.091 J	0.11 J	0.22 J	4.4	--	--	390	1,000	--
Sodium	1,300	420	550	--	--	--	--	--	--
Vanadium	16	20	29	550	--	--	550	1,400	--
Zinc	39	27	55	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)									
Barium	0.38 J	0.51	0.46 J	--	--	--	--	--	2
Boron	0.066 J	0.061 J	0.067 J	--	--	--	--	--	2
Cadmium	0.0027 J	ND U	0.0023 J	--	--	--	--	--	0.005
Lead	0.094 L	ND U	ND U	--	--	--	--	--	0.0075
Manganese	2.3 L	0.36 L	0.7 L	--	--	--	--	--	0.15
Zinc	0.1 J	ND U	0.21 J	--	--	--	--	--	5
SPLP Metals (mg/L)									
Lead	0.26 L	NA	NA	--	--	--	--	--	0.0075
Manganese	0.38 L	0.52 L	1.1 L	--	--	--	--	--	0.15

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144976-1
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/18/2018 4:07:53 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Job ID: 500-144976-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144976-1

Receipt

The samples were received on 5/4/2018 5:22 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 432121: Chloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid surrogate and/or base surrogate outside acceptance limits: 2273V-04-B01 (0-5) (500-144976-1), 2273V-04-B03 (0-5) (500-144976-2), (500-144976-E-1-E MS), and (500-144976-E-1-F MSD). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for three analytes: 2,4-Dinitrophenol; 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene. Data has been qualified and reported. (500-144976-E-1-E MS) and (500-144976-E-1-F MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 7470A: The extraction blank for analytical batch 500-432215 contained Mercury greater than the reporting limit (RL). The samples were not reanalyzed because All the samples were below the RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B01 (0-5)

Lab Sample ID: 500-144976-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.024		0.016	0.0068	mg/Kg	1		☼	8260B	Total/NA
2-Butanone (MEK)	0.0035	J	0.0039	0.0017	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.0081	J F1	0.037	0.0058	mg/Kg	1		☼	8270D	Total/NA
2-Methylnaphthalene	0.014	J	0.076	0.0069	mg/Kg	1		☼	8270D	Total/NA
Acenaphthylene	0.0060	J	0.037	0.0050	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.053		0.037	0.0052	mg/Kg	1		☼	8270D	Total/NA
Anthracene	0.011	J F1	0.037	0.0063	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.056		0.037	0.0070	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.089	F1	0.037	0.0075	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.039	F1	0.037	0.0051	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.051		0.037	0.010	mg/Kg	1		☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.087	J F1	0.19	0.069	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.061	F1	0.037	0.0081	mg/Kg	1		☼	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J F1	0.037	0.011	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.045	F1	0.037	0.0073	mg/Kg	1		☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.016	J F1	0.037	0.0097	mg/Kg	1		☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.020	J F1	0.037	0.012	mg/Kg	1		☼	8270D	Total/NA
Arsenic	2.1		0.55	0.19	mg/Kg	1		☼	6010B	Total/NA
Barium	27		0.55	0.063	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.24		0.22	0.051	mg/Kg	1		☼	6010B	Total/NA
Boron	4.4	B	2.7	0.26	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.24	B	0.11	0.020	mg/Kg	1		☼	6010B	Total/NA
Calcium	48000	B	55	9.3	mg/Kg	5		☼	6010B	Total/NA
Chromium	8.2		0.55	0.27	mg/Kg	1		☼	6010B	Total/NA
Cobalt	3.1		0.27	0.072	mg/Kg	1		☼	6010B	Total/NA
Copper	9.0	B	0.55	0.15	mg/Kg	1		☼	6010B	Total/NA
Iron	7200	B	11	5.7	mg/Kg	1		☼	6010B	Total/NA
Lead	69		0.27	0.13	mg/Kg	1		☼	6010B	Total/NA
Magnesium	24000		5.5	2.7	mg/Kg	1		☼	6010B	Total/NA
Manganese	140		0.55	0.080	mg/Kg	1		☼	6010B	Total/NA
Nickel	7.4		0.55	0.16	mg/Kg	1		☼	6010B	Total/NA
Potassium	530		27	9.7	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.33	J	0.55	0.32	mg/Kg	1		☼	6010B	Total/NA
Silver	0.091	J	0.27	0.071	mg/Kg	1		☼	6010B	Total/NA
Sodium	1300		55	8.1	mg/Kg	1		☼	6010B	Total/NA
Vanadium	16		0.27	0.065	mg/Kg	1		☼	6010B	Total/NA
Zinc	39	B	1.1	0.48	mg/Kg	1		☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.066	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Lead	0.094		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	2.3		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.10	J	0.50	0.020	mg/L	1			6010B	TCLP
Lead	0.26		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	0.38		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.022		0.019	0.0062	mg/Kg	1		☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1			9045D	Total/NA

Client Sample ID: 2273V-04-B03 (0-5)

Lab Sample ID: 500-144976-2

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B03 (0-5) (Continued)

Lab Sample ID: 500-144976-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.9		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	53		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.51		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	2.7	J B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	17000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	9.8	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	790		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.22	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	29		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	55	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.067	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.70		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-04-B02 (0-5)

Lab Sample ID: 500-144976-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.0089	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.2		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.52	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	3.5	B	2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	41000	B	52	8.9	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.7		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	8.9	B	0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	9900	B	10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	8.6		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.52	0.076	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.6		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	830		26	9.3	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Sodium	420		52	7.7	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B02 (0-5) (Continued)

Lab Sample ID: 500-144976-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	20		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	27	B	1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.061	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.52		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0086	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144976-1	2273V-04-B01 (0-5)	Solid	05/04/18 09:20	05/04/18 17:22
500-144976-2	2273V-04-B03 (0-5)	Solid	05/04/18 11:35	05/04/18 17:22
500-144976-3	2273V-04-B02 (0-5)	Solid	05/04/18 11:45	05/04/18 17:22

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B01 (0-5)

Lab Sample ID: 500-144976-1

Date Collected: 05/04/18 09:20

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 85.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024		0.016	0.0068	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
2-Butanone (MEK)	0.0035	J	0.0039	0.0017	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Chloroethane	<0.0039	*	0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/05/18 08:30	05/14/18 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	05/05/18 08:30	05/14/18 23:55	1
Dibromofluoromethane	83		75 - 126	05/05/18 08:30	05/14/18 23:55	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/05/18 08:30	05/14/18 23:55	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/14/18 23:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19	F1	0.19	0.083	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B01 (0-5)

Lab Sample ID: 500-144976-1

Date Collected: 05/04/18 09:20

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Hexachloroethane	<0.19	F1	0.19	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Chlorophenol	<0.19	F1	0.19	0.064	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Naphthalene	0.0081	J F1	0.037	0.0058	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Hexachlorocyclopentadiene	<0.76	F1	0.76	0.22	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Methylnaphthalene	0.014	J	0.076	0.0069	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Chloronaphthalene	<0.19	F1	0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Chloro-3-methylphenol	<0.37	F1	0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4-Dinitrophenol	<0.76	F1	0.76	0.66	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Acenaphthylene	0.0060	J	0.037	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Acenaphthene	<0.037	F1	0.037	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Dibenzofuran	<0.19	F1	0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Bromophenyl phenyl ether	<0.19	F1	0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Diethyl phthalate	<0.19	F1	0.19	0.064	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4-Chlorophenyl phenyl ether	<0.19	F1	0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
N-Nitrosodiphenylamine	<0.19	F1	0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
4,6-Dinitro-2-methylphenol	<0.76	F1	0.76	0.30	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Phenanthrene	0.053		0.037	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Anthracene	0.011	J F1	0.037	0.0063	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Fluoranthene	0.056		0.037	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Pyrene	0.089	F1	0.037	0.0075	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Butyl benzyl phthalate	<0.19	F1	0.19	0.071	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Benzo[a]anthracene	0.039	F1	0.037	0.0051	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B01 (0-5)

Lab Sample ID: 500-144976-1

Date Collected: 05/04/18 09:20

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 85.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.051		0.037	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Bis(2-ethylhexyl) phthalate	0.087	J F1	0.19	0.069	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Benzo[b]fluoranthene	0.061	F1	0.037	0.0081	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Benzo[k]fluoranthene	0.018	J F1	0.037	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Benzo[a]pyrene	0.045	F1	0.037	0.0073	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Indeno[1,2,3-cd]pyrene	0.016	J F1	0.037	0.0097	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Dibenz(a,h)anthracene	<0.037	F1	0.037	0.0073	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
Benzo[g,h,i]perylene	0.020	J F1	0.037	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 12:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	133		46 - 133	05/11/18 07:05	05/13/18 12:49	1
Phenol-d5	127	X	46 - 125	05/11/18 07:05	05/13/18 12:49	1
Nitrobenzene-d5	112		41 - 120	05/11/18 07:05	05/13/18 12:49	1
2-Fluorobiphenyl	124	X	44 - 121	05/11/18 07:05	05/13/18 12:49	1
2,4,6-Tribromophenol	81		25 - 139	05/11/18 07:05	05/13/18 12:49	1
Terphenyl-d14	142		35 - 160	05/11/18 07:05	05/13/18 12:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Arsenic	2.1		0.55	0.19	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Barium	27		0.55	0.063	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Beryllium	0.24		0.22	0.051	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Boron	4.4	B	2.7	0.26	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Cadmium	0.24	B	0.11	0.020	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Calcium	48000	B	55	9.3	mg/Kg	☼	05/10/18 16:18	05/15/18 02:46	5
Chromium	8.2		0.55	0.27	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Cobalt	3.1		0.27	0.072	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Copper	9.0	B	0.55	0.15	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Iron	7200	B	11	5.7	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Lead	69		0.27	0.13	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Magnesium	24000		5.5	2.7	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Manganese	140		0.55	0.080	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Nickel	7.4		0.55	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Potassium	530		27	9.7	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Selenium	0.33	J	0.55	0.32	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Silver	0.091	J	0.27	0.071	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Sodium	1300		55	8.1	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Vanadium	16		0.27	0.065	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1
Zinc	39	B	1.1	0.48	mg/Kg	☼	05/10/18 16:18	05/11/18 18:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 22:47	1
Boron	0.066	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B01 (0-5)

Lab Sample ID: 500-144976-1

Date Collected: 05/04/18 09:20

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 85.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0027	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Lead	0.094		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Manganese	2.3		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:47	1
Zinc	0.10	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:47	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.26		0.0075	0.0075	mg/L	-	05/11/18 15:29	05/15/18 05:32	1
Manganese	0.38		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 05:32	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:02	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.019	0.0062	mg/Kg	☼	05/15/18 21:35	05/16/18 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.20	0.20	SU	-		05/11/18 15:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B03 (0-5)

Lab Sample ID: 500-144976-2

Date Collected: 05/04/18 11:35

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Chloroethane	<0.0043	*	0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/05/18 08:30	05/15/18 00:21	1
Dibromofluoromethane	85		75 - 126	05/05/18 08:30	05/15/18 00:21	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/05/18 08:30	05/15/18 00:21	1
Toluene-d8 (Surr)	94		75 - 124	05/05/18 08:30	05/15/18 00:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.086	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B03 (0-5)

Lab Sample ID: 500-144976-2

Date Collected: 05/04/18 11:35

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Isophorone	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2-Nitrophenol	<0.38		0.38	0.092	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B03 (0-5)

Lab Sample ID: 500-144976-2

Date Collected: 05/04/18 11:35

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	05/11/18 07:05	05/13/18 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	136	X	46 - 133	05/11/18 07:05	05/13/18 09:30	1
Phenol-d5	114		46 - 125	05/11/18 07:05	05/13/18 09:30	1
Nitrobenzene-d5	111		41 - 120	05/11/18 07:05	05/13/18 09:30	1
2-Fluorobiphenyl	121		44 - 121	05/11/18 07:05	05/13/18 09:30	1
2,4,6-Tribromophenol	65		25 - 139	05/11/18 07:05	05/13/18 09:30	1
Terphenyl-d14	155		35 - 160	05/11/18 07:05	05/13/18 09:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Arsenic	3.9		0.56	0.19	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Barium	53		0.56	0.064	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Beryllium	0.51		0.22	0.052	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Boron	2.7	J B	2.8	0.26	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Calcium	17000	B	11	1.9	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Chromium	14		0.56	0.28	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Cobalt	6.3		0.28	0.073	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Copper	9.8	B	0.56	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Iron	13000	B	11	5.8	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Lead	14		0.28	0.13	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Magnesium	12000		5.6	2.8	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Manganese	300		0.56	0.081	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Nickel	13		0.56	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Potassium	790		28	9.9	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Silver	0.22	J	0.28	0.072	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Sodium	550		56	8.2	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Vanadium	29		0.28	0.066	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1
Zinc	55	B	1.1	0.49	mg/Kg	☼	05/10/18 16:18	05/11/18 18:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 22:51	1
Boron	0.067	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B03 (0-5)

Lab Sample ID: 500-144976-2

Date Collected: 05/04/18 11:35

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0023	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Manganese	0.70		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:51	1
Zinc	0.21	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:51	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 05:36	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0062	mg/Kg	☼	05/15/18 21:35	05/16/18 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/11/18 15:30	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B02 (0-5)

Lab Sample ID: 500-144976-3

Date Collected: 05/04/18 11:45

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 89.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Chloroethane	<0.0039	*	0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	05/05/18 08:30	05/15/18 00:47	1
Dibromofluoromethane	86		75 - 126	05/05/18 08:30	05/15/18 00:47	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	05/05/18 08:30	05/15/18 00:47	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 00:47	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B02 (0-5)

Lab Sample ID: 500-144976-3

Date Collected: 05/04/18 11:45

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 89.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Pyrene	0.0089	J	0.037	0.0073	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B02 (0-5)

Lab Sample ID: 500-144976-3

Date Collected: 05/04/18 11:45

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 89.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
Benzo[g,h,i]perylene	0.029	J	0.037	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	130		46 - 133	05/11/18 07:05	05/13/18 11:59	1
Phenol-d5	117		46 - 125	05/11/18 07:05	05/13/18 11:59	1
Nitrobenzene-d5	104		41 - 120	05/11/18 07:05	05/13/18 11:59	1
2-Fluorobiphenyl	115		44 - 121	05/11/18 07:05	05/13/18 11:59	1
2,4,6-Tribromophenol	70		25 - 139	05/11/18 07:05	05/13/18 11:59	1
Terphenyl-d14	124		35 - 160	05/11/18 07:05	05/13/18 11:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Arsenic	4.2		0.52	0.18	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Barium	46		0.52	0.060	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Beryllium	0.33		0.21	0.049	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Boron	3.5	B	2.6	0.24	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Cadmium	0.18	B	0.10	0.019	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Calcium	41000	B	52	8.9	mg/Kg	☼	05/10/18 16:18	05/15/18 02:50	5
Chromium	9.7		0.52	0.26	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Cobalt	4.5		0.26	0.068	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Copper	8.9	B	0.52	0.15	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Iron	9900	B	10	5.4	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Lead	8.6		0.26	0.12	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Magnesium	19000		5.2	2.6	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Manganese	290		0.52	0.076	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Nickel	9.6		0.52	0.15	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Potassium	830		26	9.3	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Selenium	<0.52		0.52	0.31	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Silver	0.11	J	0.26	0.067	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Sodium	420		52	7.7	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Vanadium	20		0.26	0.062	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1
Zinc	27	B	1.0	0.46	mg/Kg	☼	05/10/18 16:18	05/11/18 18:47	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.51		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 22:55	1
Boron	0.061	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 22:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Client Sample ID: 2273V-04-B02 (0-5)

Lab Sample ID: 500-144976-3

Date Collected: 05/04/18 11:45

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 89.8

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Manganese	0.36		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 22:55	1
Zinc	<0.50		0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 22:55	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.52		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 05:40	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:09	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0086	J	0.018	0.0058	mg/Kg	☼	05/15/18 21:35	05/16/18 13:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU	-		05/11/18 15:31	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D. Delant
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-144976
 Chain of Custody Number: _____
 Page 1 of 3
 Temperature °C of Cooler: 3.7

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
<u>EJE</u>		<u>1069341.0041.02</u>										
Project Name <u>FAP 025 (us 20)</u>		Lab Project #										
Project Location/State <u>Mettenry Co, IL</u>		Lab PM <u>R. Wong</u>										
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix					Comments	
			Date	Time								
<u>1</u>		<u>2273V-04-B01(0-5)</u>	<u>5/4/18</u>	<u>0920</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
<u>2</u>		<u>2273V-04-B03(0-5)</u>	<u>1</u>	<u>1135</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
<u>3</u>		<u>2273V-04-B02(0-5)</u>	<u>1</u>	<u>1145</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		

Turnaround Time Required (Business Days)

Requested Due Date: 1 Day 2 Days 5 Days 7 Days X 10 Days 15 Days Other

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>EJE</u>	Date <u>5/4/18</u>	Time <u>1515</u>	Received By <u>P. Neal</u>	Company <u>TA</u>	Date <u>5/4/18</u>	Time <u>1515</u>
Relinquished By <u>P. Neal</u>	Company <u>TA</u>	Date <u>5/4/18</u>	Time <u>1722</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>05/04/18</u>	Time <u>1722</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier:
 Shipped:
 Hand Delivered:

Matrix Key

WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:



500-144976 COC

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144976-1

Login Number: 144976

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

8518 S. Union Road (ISGS #3696-42)

City: Marengo State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.2043 Longitude: -88.5501
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2273V-12-B01 through 2273V-12-B05 were sampled within the construction zone adjacent to ISGS #3696-42 (2273V-12, Residence). Refer to PSI Report for ISGS #3696-42 (2273V-12, Residence) including Table 4-4, and Figure 4-2.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J144976-2.

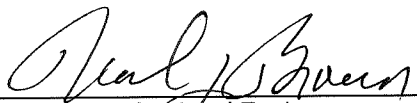
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

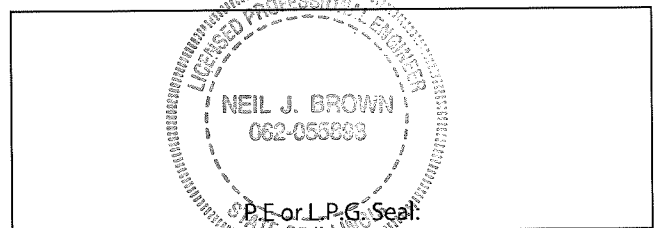
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
Street Address: 33 West Monroe
City: Chicago State: IL Zip Code: 60603
Phone: 312-578-9243

Neil J. Brown
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

1/27/2020
Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-42 (Residence)					Comparison Criteria					
	2273V-12-B01	2273V-12-B02	2273V-12-B03	2273V-12-B04	2273V-12-B05	MACs			TACO		
BORING	2273V-12-B01 (0-5)	2273V-12-B02 (0-5)	2273V-12-B03 (0-5)	2273V-12-B04 (0-5)	2273V-12-B05 (0-5)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil						
MATRIX	0-5	0-5	0-5	0-5	0-5						
DEPTH (feet)	7.9	8	7.7	8.3	8.1						
pH	--	--	--	--	--						
PID											
VOCs (mg/kg)											
Acetone	ND U	ND U	ND U	0.011 J	ND U	25	--	--	70,000	100,000	--
SVOCs (mg/kg)											
2-Methylnaphthalene	ND U	0.017 J	ND U	ND U	ND U	--	--	--	--	--	--
Anthracene	0.0064 J	ND U	ND U	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.047	0.017 J	0.005 J	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.064	0.019 J	ND U	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.12	0.031 J	ND U	ND U	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.039	0.017 J	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.037 J	ND U	ND U	ND U	ND U	9	--	--	9	1,700	--
Chrysene	0.059	0.021 J	ND U	ND U	ND U	88	--	--	88	17,000	--
Fluoranthene	0.099	0.025 J	ND U	0.0069 J	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.03 J	0.014 J	ND U	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	0.016 J	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.033 J	0.022 J	0.0055 J	ND U	ND U	--	--	--	--	--	--
Pyrene	0.094	0.028 J	ND U	ND U	ND U	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)											
Antimony	ND U	ND U	ND U	0.25 J	ND U	5	--	--	31	82	--
Arsenic	3.8	3.1	1.5	1.3	0.94	11.3	13	--	13	61	--
Barium	36	45	11	13	8	1,500	--	--	5,500	14,000	--
Beryllium	0.38	0.41	0.17 J	0.15 J	0.13 J	22	--	--	160	410	--
Boron	4.1	ND U	3.9	ND U	ND U	40	--	--	16,000	41,000	--
Calcium	21,000	13,000	70,000	76,000	77,000	--	--	--	--	--	--
Chromium	14	14	4.6	5.4	3.8	21	--	--	230	690	--
Cobalt	4.7	4.1	2	2.2	1.8	20	--	--	4,700	12,000	--
Copper	12	9.3	5.8	5.9	5.1	2,900	--	--	2,900	8,200	--
Iron	13,000	13,000	4,700	5,100	4,100	15,000	15,900	--	--	--	--
Lead	27	21	13	9.9	2.5	107	--	--	400	700	--
Magnesium	14,000	8,800	33,000	35,000	35,000	325,000	--	--	--	730,000	--
Manganese	190	150	130	130	120	630	636	--	1,600	4,100	--
Mercury	0.016 J	0.04	ND U	ND U	ND U	0.89	--	--	10	0.1	--
Nickel	12	10	4.8	5.4	4.2	100	--	--	1,600	4,100	--
Potassium	750	570	470	490	440	--	--	--	--	--	--
Silver	0.19 J	0.19 J	ND U	ND U	ND U	4.4	--	--	390	1,000	--
Sodium	1,000	1,700	270	160	160	--	--	--	--	--	--
Vanadium	24	31	9.9	11	8.2	550	--	--	550	1,400	--
Zinc	69	35	15	14	9.2	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)											
Barium	0.29 J	0.38 J	0.12 J	0.18 J	0.12 J	--	--	--	--	--	2
Boron	0.056 J	0.057 J	ND U	ND U	ND U	--	--	--	--	--	2
Cadmium	0.0031 J	0.0025 J	ND U	ND U	ND U	--	--	--	--	--	0.005
Manganese	0.76 L	0.51 L	0.9 L	0.56 L	0.67 L	--	--	--	--	--	0.15
Nickel	0.012 J	ND U	ND U	ND U	ND U	--	--	--	--	--	0.1
Zinc	0.32 J	0.043 J	0.079 J	0.1 J	0.11 J	--	--	--	--	--	5
SPLP Metals (mg/L)											
Manganese	0.65 L	0.88 L	0.054	0.21 L	0.099	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144976-2
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/18/2018 4:08:13 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Job ID: 500-144976-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144976-2

Receipt

The samples were received on 5/4/2018 5:22 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCSD associated with 432121: Chloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples contained one acid surrogate and/or base surrogate outside acceptance limits: 2273V-12-B05 (0-5) (500-144976-7) and 2273V-12-B04 (0-5) (500-144976-8). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: The following sample had 2 acid surrogates and one base surrogate outside limits: 2273V-12-B01 (0-5) (500-144976-5). There were no acid hits in this sample.

Method(s) 8270D: The following sample had 2 acid surrogates and one base surrogate outside limits: 2273V-12-B03 (0-5) (500-144976-6). All hits in this sample were < RL.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 7470A: The extraction blank for analytical batch 500-432215 contained Mercury greater than the reporting limit (RL). The samples were not reanalyzed because All the samples were below the RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B02 (0-5)

Lab Sample ID: 500-144976-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.017	J	0.077	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.022	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.025	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.028	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.017	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.021	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.031	J	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.019	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.014	J	0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.017	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	2.4	J B	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Calcium	13000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.1		0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	9.3	B	0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8800		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	150		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	570		30	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.30	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	1700		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	31		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	35	B	1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.057	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.51		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.043	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.88		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.040		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-12-B01 (0-5)

Lab Sample ID: 500-144976-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.033	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0064	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.099		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.094		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.047		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.059		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.037	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B01 (0-5) (Continued)

Lab Sample ID: 500-144976-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.064		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.030	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.8		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	4.1	B	2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.32	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	21000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.7		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	12	B	0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	13000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	750		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J	0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	69	B	1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.056	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.76		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.32	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.65		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.016	J	0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-12-B03 (0-5)

Lab Sample ID: 500-144976-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0055	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0050	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Arsenic	1.5		0.49	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	11		0.49	0.056	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.17	J	0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	3.9	B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.098	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	70000	B	49	8.3	mg/Kg	5	☼	6010B	Total/NA
Chromium	4.6		0.49	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.0		0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	5.8	B	0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	4700	B	9.8	5.1	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000		4.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.49	0.071	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B03 (0-5) (Continued)

Lab Sample ID: 500-144976-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	4.8		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	470		120	43	mg/Kg	5	☼	6010B	Total/NA
Sodium	270		49	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.9		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Zinc	15	B	0.98	0.43	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.90		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.079	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.054		0.025	0.010	mg/L	1		6010B	SPLP East
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-12-B05 (0-5)

Lab Sample ID: 500-144976-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.94		0.49	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	8.0		0.49	0.056	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.13	J	0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	3.3	B	2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.095	J B	0.098	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000	B	98	17	mg/Kg	10	☼	6010B	Total/NA
Chromium	3.8		0.49	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.8		0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	5.1	B	0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	4100	B	9.8	5.1	mg/Kg	1	☼	6010B	Total/NA
Lead	2.5		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		4.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	120		0.49	0.071	mg/Kg	1	☼	6010B	Total/NA
Nickel	4.2		0.49	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	440		250	87	mg/Kg	10	☼	6010B	Total/NA
Sodium	160		49	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.2		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Zinc	9.2	B	0.98	0.43	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.67		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.099		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2273V-12-B04 (0-5)

Lab Sample ID: 500-144976-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011	J	0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.0069	J	0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.25	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.3		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	13		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.15	J	0.20	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	3.6	B	2.5	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Calcium	76000	B	100	17	mg/Kg	10	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B04 (0-5) (Continued)

Lab Sample ID: 500-144976-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	5.4		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.2		0.25	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	5.9	B	0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	5100	B	10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	9.9		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	5.4		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	490		250	90	mg/Kg	10	☼	6010B	Total/NA
Sodium	160		51	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	14	B	1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.56		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.10	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144976-4	2273V-12-B02 (0-5)	Solid	05/04/18 09:30	05/04/18 17:22
500-144976-5	2273V-12-B01 (0-5)	Solid	05/04/18 09:40	05/04/18 17:22
500-144976-6	2273V-12-B03 (0-5)	Solid	05/04/18 10:00	05/04/18 17:22
500-144976-7	2273V-12-B05 (0-5)	Solid	05/04/18 11:55	05/04/18 17:22
500-144976-8	2273V-12-B04 (0-5)	Solid	05/04/18 12:05	05/04/18 17:22



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B02 (0-5)

Lab Sample ID: 500-144976-4

Date Collected: 05/04/18 09:30

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Chloroethane	<0.0039	*	0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 01:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		75 - 131	05/05/18 08:30	05/15/18 01:14	1
Dibromofluoromethane	85		75 - 126	05/05/18 08:30	05/15/18 01:14	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 01:14	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 01:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B02 (0-5)

Lab Sample ID: 500-144976-4

Date Collected: 05/04/18 09:30

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Naphthalene	0.016	J	0.038	0.0058	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Methylnaphthalene	0.017	J	0.077	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Phenanthrene	0.022	J	0.038	0.0053	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Fluoranthene	0.025	J	0.038	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Pyrene	0.028	J	0.038	0.0075	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Benzo[a]anthracene	0.017	J	0.038	0.0051	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B02 (0-5)

Lab Sample ID: 500-144976-4

Date Collected: 05/04/18 09:30

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.021	J	0.038	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Benzo[b]fluoranthene	0.031	J	0.038	0.0082	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Benzo[a]pyrene	0.019	J	0.038	0.0074	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Indeno[1,2,3-cd]pyrene	0.014	J	0.038	0.0098	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
Benzo[g,h,i]perylene	0.017	J	0.038	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 09:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124		46 - 133	05/11/18 07:05	05/13/18 09:55	1
Phenol-d5	109		46 - 125	05/11/18 07:05	05/13/18 09:55	1
Nitrobenzene-d5	108		41 - 120	05/11/18 07:05	05/13/18 09:55	1
2-Fluorobiphenyl	117		44 - 121	05/11/18 07:05	05/13/18 09:55	1
2,4,6-Tribromophenol	77		25 - 139	05/11/18 07:05	05/13/18 09:55	1
Terphenyl-d14	143		35 - 160	05/11/18 07:05	05/13/18 09:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Arsenic	3.1		0.59	0.20	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Barium	45		0.59	0.067	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Beryllium	0.41		0.24	0.055	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Boron	2.4	J B	3.0	0.28	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Cadmium	0.23	B	0.12	0.021	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Calcium	13000	B	12	2.0	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Chromium	14		0.59	0.29	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Cobalt	4.1		0.30	0.077	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Copper	9.3	B	0.59	0.17	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Iron	13000	B	12	6.1	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Lead	21		0.30	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Magnesium	8800		5.9	2.9	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Manganese	150		0.59	0.086	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Nickel	10		0.59	0.17	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Potassium	570		30	10	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Silver	0.19	J	0.30	0.076	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Sodium	1700		59	8.7	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Vanadium	31		0.30	0.070	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1
Zinc	35	B	1.2	0.52	mg/Kg	☼	05/10/18 16:18	05/11/18 18:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:00	1
Boron	0.057	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B02 (0-5)

Lab Sample ID: 500-144976-4

Date Collected: 05/04/18 09:30

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Manganese	0.51		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:00	1
Zinc	0.043	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:00	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.88		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 05:44	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040		0.018	0.0059	mg/Kg	☼	05/15/18 21:35	05/16/18 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.20	0.20	SU	-		05/11/18 15:33	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B01 (0-5)

Lab Sample ID: 500-144976-5

Date Collected: 05/04/18 09:40

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Chloroethane	<0.0043	*	0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 01:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/05/18 08:30	05/15/18 01:40	1
Dibromofluoromethane	85		75 - 126	05/05/18 08:30	05/15/18 01:40	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	05/05/18 08:30	05/15/18 01:40	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 01:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B01 (0-5)

Lab Sample ID: 500-144976-5

Date Collected: 05/04/18 09:40

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Phenanthrene	0.033	J	0.038	0.0053	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Anthracene	0.0064	J	0.038	0.0064	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Fluoranthene	0.099		0.038	0.0071	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Pyrene	0.094		0.038	0.0076	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Benzo[a]anthracene	0.047		0.038	0.0051	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B01 (0-5)

Lab Sample ID: 500-144976-5

Date Collected: 05/04/18 09:40

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.059		0.038	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Benzo[b]fluoranthene	0.12		0.038	0.0082	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Benzo[k]fluoranthene	0.037 J		0.038	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Benzo[a]pyrene	0.064		0.038	0.0074	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Indeno[1,2,3-cd]pyrene	0.030 J		0.038	0.0099	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	05/11/18 07:05	05/13/18 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/11/18 07:05	05/13/18 12:24	1
Phenol-d5	127	X	46 - 125	05/11/18 07:05	05/13/18 12:24	1
Nitrobenzene-d5	113		41 - 120	05/11/18 07:05	05/13/18 12:24	1
2-Fluorobiphenyl	122	X	44 - 121	05/11/18 07:05	05/13/18 12:24	1
2,4,6-Tribromophenol	90		25 - 139	05/11/18 07:05	05/13/18 12:24	1
Terphenyl-d14	145		35 - 160	05/11/18 07:05	05/13/18 12:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Arsenic	3.8		0.56	0.19	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Barium	36		0.56	0.064	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Beryllium	0.38		0.22	0.052	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Boron	4.1 B		2.8	0.26	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Cadmium	0.32 B		0.11	0.020	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Calcium	21000 B		11	1.9	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Chromium	14		0.56	0.28	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Cobalt	4.7		0.28	0.073	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Copper	12 B		0.56	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Iron	13000 B		11	5.8	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Lead	27		0.28	0.13	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Magnesium	14000		5.6	2.8	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Manganese	190		0.56	0.081	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Nickel	12		0.56	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Potassium	750		28	9.9	mg/Kg	☼	05/10/18 16:18	05/15/18 02:54	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Silver	0.19 J		0.28	0.072	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Sodium	1000		56	8.2	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Vanadium	24		0.28	0.066	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1
Zinc	69 B		1.1	0.49	mg/Kg	☼	05/10/18 16:18	05/11/18 19:03	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29 J		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:04	1
Boron	0.056 J		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B01 (0-5)

Lab Sample ID: 500-144976-5

Date Collected: 05/04/18 09:40

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 84.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Manganese	0.76		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Nickel	0.012	J	0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:04	1
Zinc	0.32	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:04	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.65		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 05:48	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:16	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.017	0.0058	mg/Kg	☼	05/15/18 21:35	05/16/18 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.20	0.20	SU	-		05/11/18 15:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B03 (0-5)

Lab Sample ID: 500-144976-6

Date Collected: 05/04/18 10:00

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 93.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Chloroethane	<0.0044	*	0.0044	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 02:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	05/05/18 08:30	05/15/18 02:07	1
Dibromofluoromethane	85		75 - 126	05/05/18 08:30	05/15/18 02:07	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 02:07	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 02:07	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B03 (0-5)

Lab Sample ID: 500-144976-6

Date Collected: 05/04/18 10:00

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 93.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Phenanthrene	0.0055	J	0.035	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Benzo[a]anthracene	0.0050	J	0.035	0.0048	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B03 (0-5)

Lab Sample ID: 500-144976-6

Date Collected: 05/04/18 10:00

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 93.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0096	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 10:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	145	X	46 - 133	05/11/18 07:05	05/13/18 10:19	1
Phenol-d5	126	X	46 - 125	05/11/18 07:05	05/13/18 10:19	1
Nitrobenzene-d5	119		41 - 120	05/11/18 07:05	05/13/18 10:19	1
2-Fluorobiphenyl	126	X	44 - 121	05/11/18 07:05	05/13/18 10:19	1
2,4,6-Tribromophenol	87		25 - 139	05/11/18 07:05	05/13/18 10:19	1
Terphenyl-d14	154		35 - 160	05/11/18 07:05	05/13/18 10:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.98		0.98	0.19	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Arsenic	1.5		0.49	0.17	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Barium	11		0.49	0.056	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Beryllium	0.17	J	0.20	0.046	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Boron	3.9	B	2.5	0.23	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Cadmium	0.13	B	0.098	0.018	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Calcium	70000	B	49	8.3	mg/Kg	☼	05/10/18 16:18	05/15/18 02:58	5
Chromium	4.6		0.49	0.24	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Cobalt	2.0		0.25	0.064	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Copper	5.8	B	0.49	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Iron	4700	B	9.8	5.1	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Lead	13		0.25	0.11	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Magnesium	33000		4.9	2.4	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Manganese	130		0.49	0.071	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Nickel	4.8		0.49	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Potassium	470		120	43	mg/Kg	☼	05/10/18 16:18	05/15/18 02:58	5
Selenium	<0.49		0.49	0.29	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Silver	<0.25		0.25	0.063	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Sodium	270		49	7.3	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Thallium	<0.49		0.49	0.25	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Vanadium	9.9		0.25	0.058	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1
Zinc	15	B	0.98	0.43	mg/Kg	☼	05/10/18 16:18	05/11/18 19:07	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.12	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:17	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B03 (0-5)

Lab Sample ID: 500-144976-6

Date Collected: 05/04/18 10:00

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 93.6

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:17	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:17	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:17	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:17	1
Manganese	0.90		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:17	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:17	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:17	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:17	1
Zinc	0.079	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:17	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.054		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 05:52	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.016		0.016	0.0055	mg/Kg	☼	05/15/18 21:35	05/16/18 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.20	0.20	SU			05/11/18 15:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B05 (0-5)

Lab Sample ID: 500-144976-7

Date Collected: 05/04/18 11:55

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Chloroethane	<0.0043	*	0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		75 - 131	05/05/18 08:30	05/15/18 02:34	1
Dibromofluoromethane	84		75 - 126	05/05/18 08:30	05/15/18 02:34	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 134	05/05/18 08:30	05/15/18 02:34	1
Toluene-d8 (Surr)	92		75 - 124	05/05/18 08:30	05/15/18 02:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.077	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.052	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B05 (0-5)

Lab Sample ID: 500-144976-7

Date Collected: 05/04/18 11:55

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.17		0.17	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Methylphenol	<0.17		0.17	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
N-Nitrosodi-n-propylamine	<0.070		0.070	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Hexachloroethane	<0.17		0.17	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Chlorophenol	<0.17		0.17	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Nitrobenzene	<0.034		0.034	0.0086	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Isophorone	<0.17		0.17	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Naphthalene	<0.034		0.034	0.0053	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4-Dichlorophenol	<0.34		0.34	0.082	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4,5-Trichlorophenol	<0.34		0.34	0.079	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Methylnaphthalene	<0.070		0.070	0.0064	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Nitroaniline	<0.17		0.17	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,6-Dinitrotoluene	<0.17		0.17	0.068	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2-Nitrophenol	<0.34		0.34	0.082	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Acenaphthylene	<0.034		0.034	0.0046	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
2,4-Dinitrotoluene	<0.17		0.17	0.055	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Dibenzofuran	<0.17		0.17	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Fluorene	<0.034		0.034	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Hexachlorobenzene	<0.070		0.070	0.0080	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Diethyl phthalate	<0.17		0.17	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Pentachlorophenol	<0.70		0.70	0.56	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
N-Nitrosodiphenylamine	<0.17		0.17	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
4,6-Dinitro-2-methylphenol	<0.70		0.70	0.28	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Phenanthrene	<0.034		0.034	0.0048	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Anthracene	<0.034		0.034	0.0058	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Carbazole	<0.17		0.17	0.087	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Di-n-butyl phthalate	<0.17		0.17	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Fluoranthene	<0.034		0.034	0.0064	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Pyrene	<0.034		0.034	0.0069	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Butyl benzyl phthalate	<0.17		0.17	0.066	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Benzo[a]anthracene	<0.034		0.034	0.0047	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B05 (0-5)

Lab Sample ID: 500-144976-7

Date Collected: 05/04/18 11:55

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.034		0.034	0.0094	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Di-n-octyl phthalate	<0.17		0.17	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Benzo[b]fluoranthene	<0.034		0.034	0.0075	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Benzo[a]pyrene	<0.034		0.034	0.0067	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0090	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0067	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
Benzo[g,h,i]perylene	<0.034		0.034	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1
3 & 4 Methylphenol	<0.17		0.17	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 10:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/11/18 07:05	05/13/18 10:45	1
Phenol-d5	120		46 - 125	05/11/18 07:05	05/13/18 10:45	1
Nitrobenzene-d5	113		41 - 120	05/11/18 07:05	05/13/18 10:45	1
2-Fluorobiphenyl	120		44 - 121	05/11/18 07:05	05/13/18 10:45	1
2,4,6-Tribromophenol	88		25 - 139	05/11/18 07:05	05/13/18 10:45	1
Terphenyl-d14	143		35 - 160	05/11/18 07:05	05/13/18 10:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.98		0.98	0.19	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Arsenic	0.94		0.49	0.17	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Barium	8.0		0.49	0.056	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Beryllium	0.13	J	0.20	0.046	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Boron	3.3	B	2.5	0.23	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Cadmium	0.095	J B	0.098	0.018	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Calcium	77000	B	98	17	mg/Kg	☼	05/10/18 16:18	05/15/18 03:02	10
Chromium	3.8		0.49	0.24	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Cobalt	1.8		0.25	0.064	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Copper	5.1	B	0.49	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Iron	4100	B	9.8	5.1	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Lead	2.5		0.25	0.11	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Magnesium	35000		4.9	2.4	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Manganese	120		0.49	0.071	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Nickel	4.2		0.49	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Potassium	440		250	87	mg/Kg	☼	05/10/18 16:18	05/15/18 03:02	10
Selenium	<0.49		0.49	0.29	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Silver	<0.25		0.25	0.063	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Sodium	160		49	7.3	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Thallium	<0.49		0.49	0.24	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Vanadium	8.2		0.25	0.058	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1
Zinc	9.2	B	0.98	0.43	mg/Kg	☼	05/10/18 16:18	05/11/18 19:11	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.12	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:21	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B05 (0-5)

Lab Sample ID: 500-144976-7

Date Collected: 05/04/18 11:55

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:21	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:21	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:21	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:21	1
Manganese	0.67		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:21	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:21	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:21	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:21	1
Zinc	0.11	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:21	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.099		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 05:56	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0057	mg/Kg	☼	05/15/18 21:35	05/16/18 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.20	0.20	SU			05/11/18 15:39	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B04 (0-5)

Lab Sample ID: 500-144976-8

Date Collected: 05/04/18 12:05

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011	J	0.016	0.0071	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 03:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	05/05/18 08:30	05/15/18 03:01	1
Dibromofluoromethane	85		75 - 126	05/05/18 08:30	05/15/18 03:01	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 03:01	1
Toluene-d8 (Surr)	94		75 - 124	05/05/18 08:30	05/15/18 03:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B04 (0-5)

Lab Sample ID: 500-144976-8

Date Collected: 05/04/18 12:05

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Methylnaphthalene	<0.071		0.071	0.0064	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Fluoranthene	0.0069	J	0.035	0.0065	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B04 (0-5)

Lab Sample ID: 500-144976-8

Date Collected: 05/04/18 12:05

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0096	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137	X	46 - 133	05/11/18 07:05	05/13/18 11:09	1
Phenol-d5	122		46 - 125	05/11/18 07:05	05/13/18 11:09	1
Nitrobenzene-d5	119		41 - 120	05/11/18 07:05	05/13/18 11:09	1
2-Fluorobiphenyl	127	X	44 - 121	05/11/18 07:05	05/13/18 11:09	1
2,4,6-Tribromophenol	89		25 - 139	05/11/18 07:05	05/13/18 11:09	1
Terphenyl-d14	145		35 - 160	05/11/18 07:05	05/13/18 11:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	1.0	0.20	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Arsenic	1.3		0.51	0.17	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Barium	13		0.51	0.058	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Beryllium	0.15	J	0.20	0.048	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Boron	3.6	B	2.5	0.24	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Cadmium	0.13	B	0.10	0.018	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Calcium	76000	B	100	17	mg/Kg	☼	05/10/18 16:18	05/15/18 03:07	10
Chromium	5.4		0.51	0.25	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Cobalt	2.2		0.25	0.067	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Copper	5.9	B	0.51	0.14	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Iron	5100	B	10	5.3	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Lead	9.9		0.25	0.12	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Magnesium	35000		5.1	2.5	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Manganese	130		0.51	0.074	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Nickel	5.4		0.51	0.15	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Potassium	490		250	90	mg/Kg	☼	05/10/18 16:18	05/15/18 03:07	10
Selenium	<0.51		0.51	0.30	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Silver	<0.25		0.25	0.066	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Sodium	160		51	7.5	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Thallium	<0.51		0.51	0.25	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Vanadium	11		0.25	0.060	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1
Zinc	14	B	1.0	0.45	mg/Kg	☼	05/10/18 16:18	05/11/18 19:15	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.18	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:25	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Client Sample ID: 2273V-12-B04 (0-5)

Lab Sample ID: 500-144976-8

Date Collected: 05/04/18 12:05

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 94.3

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Chromium	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Cobalt	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Iron	<0.40		0.40	0.20	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Manganese	0.56		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Nickel	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Selenium	<0.050		0.050	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Silver	<0.025		0.025	0.010	mg/L	-	05/11/18 15:25	05/14/18 23:25	1
Zinc	0.10	J	0.50	0.020	mg/L	-	05/11/18 15:25	05/14/18 23:25	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.21		0.025	0.010	mg/L	-	05/11/18 15:29	05/15/18 06:00	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	05/11/18 15:25	05/14/18 18:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	05/11/18 15:25	05/14/18 18:26	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	05/11/18 17:40	05/14/18 15:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0057	mg/Kg	☼	05/15/18 21:35	05/16/18 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.20	0.20	SU	-		05/11/18 15:41	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-2

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D Trebant
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144976
 Chain of Custody Number: _____
 Page 2 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
<u>EFE</u>		<u>1009341.0041.02</u>									
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
<u>FAP #525 (LIS 20)</u>											
Project Location/State		Lab Project #		Date		Time		# of Containers		Matrix	
<u>McHenry Co, IL</u>											
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
<u>E Fisher</u>		<u>R Wright</u>									
Lab ID	MS/MSD	Sample ID		Date	Time	# of Containers	Matrix				
<u>4</u>		<u>2273V-12-B02(0-5)</u>		<u>5/4/18</u>	<u>0930</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>5</u>		<u>2273V-12-B01(0-5)</u>			<u>0940</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>6</u>		<u>2273V-12-B03(0-5)</u>			<u>1000</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>7</u>		<u>2273V-12-B05(0-5)</u>			<u>1155</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>8</u>		<u>2273V-12-B04(0-5)</u>			<u>1205</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
 Requested Due Date: _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company: <u>EFE</u> Date: <u>5/4/18</u> Time: <u>1515</u>	Received By <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/4/18</u> Time: <u>1515</u>	Lab Courier: _____
Relinquished By <u>[Signature]</u> Company: <u>TA</u> Date: <u>5/4/18</u> Time: <u>1722</u>	Received By <u>[Signature]</u> Company: <u>TA</u> Date: <u>05/04/18</u> Time: <u>1722</u>	Shipped: _____
Relinquished By _____ Company: _____ Date: _____ Time: _____	Received By _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144976-2

Login Number: 144976

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 525 (US Route 20) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

17912 Marengo Road (ISGS #3696-43)

City: Union State: IL Zip Code: 60152

County: McHenry Township: Coral

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20389 Longitude: -88.54768
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location 2273V-13-B01 was sampled within the construction zone adjacent to ISGS #3696-43 (2273V-13, Farmstead). Refer to PSI Report for ISGS #3696-43 (2273V-13, Farmstead) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package J144976-3.

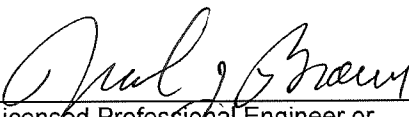
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil Brown (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

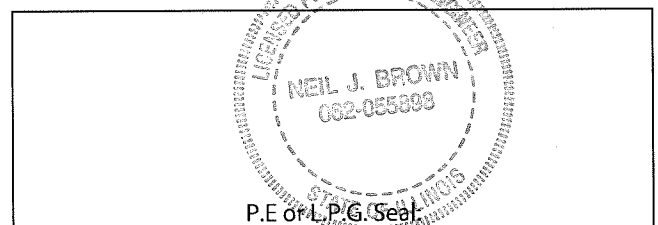
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Ecology and Environment, Inc.
 Street Address: 33 West Monroe
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

1/27/2020
 Date:



Analytical Data Summary

PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41

Key to Data Tables

MAC = Maximum Allowable Concentration of Chemical Constituent in
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations

mg/kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

MSA = Metropolitan Statistical Area

TACO = Tiered Approach to Corrective Action Objectives

TCLP = Toxicity Characteristic Leaching Procedure.

GCGIER = Groundwater Component of the Groundwater Ingestion Exposure Route

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed or not applicable.

J = Estimated value.

U = Analyte was analyzed for but not detected.

PID = Photoionization detector.

-- = No PID readings detected above background (within instrument margin of error).

Criteria Qualifiers and Shading

= pH is less than 6.25 or greater than 9.0 standard units.

** = Headspace reading above background (outside of instrument margin of error).

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.


c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.


r = Concentration exceeds a TACO Tier 1 soil RO for residential properties.

L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.


W1 = Concentration exceeds the Tier 1 Class 1 RO for the GCGIER.

W1,2 = Concentration exceeds the Tier 1 Class 2 RO for the GCGIER.

 = Headspace reading exceeds background levels

 = Concentration exceeds the most stringent MAC, but is below the MSA MAC.

 = Concentration exceeds the Chicago MAC, but is below the MSA MAC.

 = Concentration exceeds applicable comparison criteria.

**PTB #176-001; IDOT Job #D-91-339-15; Project #P-91-003-17; WorkOrder #41
CONTAMINANTS OF CONCERN**

SITE	ISGS #3696-43 (Farmstead)	Comparison Criteria					
		MACs			TACO		
BORING	2273V-13-B01						
SAMPLE	2273V-13-B01 (0-5)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil						
DEPTH (feet)	0-5						
pH	8.1						
PID	--						
VOCs (None Detected)							
SVOCs (mg/kg)							
Benzo(a)anthracene	0.0058 J	0.9	1.8	1.1	1.8	170	--
Fluoranthene	0.009 J	3,100	--	--	3,100	82,000	--
Pyrene	0.0086 J	2,300	--	--	2,300	61,000	--
Inorganics (mg/kg)							
Arsenic	3	11.3	13	--	13	61	--
Barium	37	1,500	--	--	5,500	14,000	--
Beryllium	0.37	22	--	--	160	410	--
Calcium	18,000	--	--	--	--	--	--
Chromium	11	21	--	--	230	690	--
Cobalt	4.3	20	--	--	4,700	12,000	--
Copper	8.7	2,900	--	--	2,900	8,200	--
Iron	10,000	15,000	15,900	--	--	--	--
Lead	14	107	--	--	400	700	--
Magnesium	11,000	325,000	--	--	--	730,000	--
Manganese	260	630	636	--	1,600	4,100	--
Mercury	0.013 J	0.89	--	--	10	0.1	--
Nickel	12	100	--	--	1,600	4,100	--
Potassium	590	--	--	--	--	--	--
Silver	0.16 J	4.4	--	--	390	1,000	--
Sodium	230	--	--	--	--	--	--
Vanadium	24	550	--	--	550	1,400	--
Zinc	28	5,100	--	--	23,000	61,000	--
TCLP Metals (mg/L)							
Barium	0.38 J	--	--	--	--	--	2
Manganese	0.6 L	--	--	--	--	--	0.15
Zinc	0.06 J	--	--	--	--	--	5
SPLP Metals (mg/L)							
Manganese	0.51 L	--	--	--	--	--	0.15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144976-3
Client Project/Site: IDOT - 176-001-WO041

For:
Ecology and Environment, Inc.
33 West Monroe St.
Suite 1410
Chicago, Illinois 60603

Attn: Mr. Dean Tiebout



Authorized for release by:
5/18/2018 4:08:30 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Job ID: 500-144976-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-144976-3

Receipt

The samples were received on 5/4/2018 5:22 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCSD associated with 432121: Chloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following sample had 2 acid surrogates and 2 base surrogate outside limits: 2273V-13-B01 (0-5) (500-144976-9). All hits in this sample were < RL.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 7470A: The extraction blank for analytical batch 500-432215 contained Mercury greater than the reporting limit (RL). The samples were not reanalyzed because All the samples were below the RL. The data have been qualified and reported.

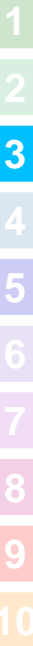
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Client Sample ID: 2273V-13-B01 (0-5)

Lab Sample ID: 500-144976-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoranthene	0.0090	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.0086	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.0058	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	3.0		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA	
Barium	37		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.37		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA	
Boron	3.1	B	2.7	0.25	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.16	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA	
Calcium	18000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA	
Chromium	11		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	4.3		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA	
Copper	8.7	B	0.54	0.15	mg/Kg	1	☼	6010B	Total/NA	
Iron	10000	B	11	5.6	mg/Kg	1	☼	6010B	Total/NA	
Lead	14		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	11000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA	
Manganese	260		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA	
Nickel	12		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA	
Potassium	590		27	9.5	mg/Kg	1	☼	6010B	Total/NA	
Silver	0.16	J	0.27	0.069	mg/Kg	1	☼	6010B	Total/NA	
Sodium	230		54	8.0	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	24		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA	
Zinc	28	B	1.1	0.47	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP	
Manganese	0.60		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.060	J	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.51		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.013	J	0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA	
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144976-9	2273V-13-B01 (0-5)	Solid	05/04/18 11:15	05/04/18 17:22

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Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Client Sample ID: 2273V-13-B01 (0-5)

Lab Sample ID: 500-144976-9

Date Collected: 05/04/18 11:15

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 88.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Chloroethane	<0.0039	*	0.0039	0.0011	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00043	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,1-Dichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Ethylbenzene	<0.0016		0.0016	0.00074	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0011	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00054	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Trichloroethene	<0.0016		0.0016	0.00052	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Vinyl acetate	<0.0039		0.0039	0.0013	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	05/05/18 08:30	05/15/18 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		75 - 131	05/05/18 08:30	05/15/18 03:28	1
Dibromofluoromethane	84		75 - 126	05/05/18 08:30	05/15/18 03:28	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 134	05/05/18 08:30	05/15/18 03:28	1
Toluene-d8 (Surr)	93		75 - 124	05/05/18 08:30	05/15/18 03:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Client Sample ID: 2273V-13-B01 (0-5)

Lab Sample ID: 500-144976-9

Date Collected: 05/04/18 11:15

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 88.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Fluoranthene	0.0090	J	0.037	0.0069	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Pyrene	0.0086	J	0.037	0.0074	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Benzo[a]anthracene	0.0058	J	0.037	0.0050	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Client Sample ID: 2273V-13-B01 (0-5)

Lab Sample ID: 500-144976-9

Date Collected: 05/04/18 11:15

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 88.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	05/11/18 07:05	05/13/18 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	145	X	46 - 133	05/11/18 07:05	05/13/18 11:34	1
Phenol-d5	126	X	46 - 125	05/11/18 07:05	05/13/18 11:34	1
Nitrobenzene-d5	125	X	41 - 120	05/11/18 07:05	05/13/18 11:34	1
2-Fluorobiphenyl	126	X	44 - 121	05/11/18 07:05	05/13/18 11:34	1
2,4,6-Tribromophenol	88		25 - 139	05/11/18 07:05	05/13/18 11:34	1
Terphenyl-d14	141		35 - 160	05/11/18 07:05	05/13/18 11:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Arsenic	3.0		0.54	0.18	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Barium	37		0.54	0.061	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Beryllium	0.37		0.21	0.050	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Boron	3.1	B	2.7	0.25	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Cadmium	0.16	B	0.11	0.019	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Calcium	18000	B	11	1.8	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Chromium	11		0.54	0.27	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Cobalt	4.3		0.27	0.070	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Copper	8.7	B	0.54	0.15	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Iron	10000	B	11	5.6	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Lead	14		0.27	0.12	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Magnesium	11000		5.4	2.7	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Manganese	260		0.54	0.078	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Nickel	12		0.54	0.16	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Potassium	590		27	9.5	mg/Kg	☼	05/10/18 16:18	05/15/18 03:11	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Silver	0.16	J	0.27	0.069	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Sodium	230		54	8.0	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Vanadium	24		0.27	0.063	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1
Zinc	28	B	1.1	0.47	mg/Kg	☼	05/10/18 16:18	05/11/18 19:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.38	J	0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		05/11/18 15:25	05/14/18 23:29	1
Boron	<0.50		0.50	0.050	mg/L		05/11/18 15:25	05/14/18 23:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Client Sample ID: 2273V-13-B01 (0-5)

Lab Sample ID: 500-144976-9

Date Collected: 05/04/18 11:15

Matrix: Solid

Date Received: 05/04/18 17:22

Percent Solids: 88.1

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		05/11/18 15:25	05/14/18 23:29	1
Chromium	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:29	1
Cobalt	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:29	1
Iron	<0.40		0.40	0.20	mg/L		05/11/18 15:25	05/14/18 23:29	1
Lead	<0.0075		0.0075	0.0075	mg/L		05/11/18 15:25	05/14/18 23:29	1
Manganese	0.60		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:29	1
Nickel	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:29	1
Selenium	<0.050		0.050	0.020	mg/L		05/11/18 15:25	05/14/18 23:29	1
Silver	<0.025		0.025	0.010	mg/L		05/11/18 15:25	05/14/18 23:29	1
Zinc	0.060	J	0.50	0.020	mg/L		05/11/18 15:25	05/14/18 23:29	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.51		0.025	0.010	mg/L		05/11/18 15:29	05/15/18 06:13	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		05/11/18 15:25	05/14/18 18:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		05/11/18 15:25	05/14/18 18:36	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/11/18 17:40	05/14/18 15:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.017	0.0055	mg/Kg	☼	05/15/18 21:35	05/16/18 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.20	0.20	SU			05/11/18 15:43	1

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - 176-001-WO041

TestAmerica Job ID: 500-144976-3

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: D. Treboux
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-144976
 Chain of Custody Number: _____
 Page 3 of 3
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Comments	
<u>EFE</u>		<u>1009341-0041.02</u>						Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		# of Containers		Matrix	
<u>FAP 525 (WS 20)</u>									
Project Location/State		Lab PM		Date		Time			
<u>McHenry CO, IL</u>		<u>R Wright</u>							
Sampler		Sample ID		Date		Time		# of Containers	
<u>E Fisher</u>									
<u>9</u>	<u>MS/MSD</u>	<u>2278V-13(B01(0-3))</u>		<u>5/4/18</u>	<u>1115</u>	<u>2</u>	<u>5</u>	<u>X</u>	<u>X</u>
								<u>X</u>	<u>X</u>

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>EFE</u>	Date <u>5/4/18</u>	Time <u>1515</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>5/4/18</u>	Time <u>1515</u>
Relinquished By <u>[Signature]</u>	Company <u>TA</u>	Date <u>5/4/18</u>	Time <u>1723</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>05/04/18</u>	Time <u>1722</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: _____
 Shipped: _____
 Hand Delivered: _____

Matrix Key

- WW - Wastewater
- W - Water
- S - Soil
- SL - Sludge
- MS - Miscellaneous
- OL - Oil
- A - Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - W/pe
- DW - Drinking Water
- O - Other

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-144976-3

Login Number: 144976

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

